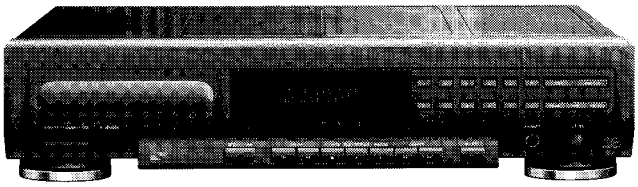
Compact disc player CD911/00S
CD921/17S

Service
Service
Service



ServiceManual

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PHILIPS

CS 60 750

TECHNICAL SPECIFICATIONS

General

1.Mains voltage CD911/00S : 230V (+6 -10%)
CD921/17S : 117V (±10%)
2.Mains frequency : 50-60 Hz
3.Mains voltage selection : No
4.Power consumption mains, standby : < 3W

Remote Control

A. Internal: RC5(only CD921)
B. External: ESI

Specification: V-in Low : from -2.0 V to +1.6 V
V-in High : from +3 V to +7.5 V
R-in : from 47 kΩ to 68 kΩ

Line output

1.Number of channels : 2
2.Output voltage : 2 Vrms ± 2 dB
3.Unbalance left-right : max. 1 dB
4.Output resistance : 1 kΩ
5.Amplitude linearity : max. ± 0.3 dB from 20 Hz to 20 kHz
6.Phase non-linearity : max 7.0° from 20 Hz to 16 kHz
7.Signal to noise ratio : min. 95 dB from 20 Hz to 20 kHz
8.Dynamic range (-60 dB) : min. 85 dB from 20 Hz to 20 kHz
9.Total harmonic distortion + noise : min. 80 dB from 20 Hz to 20 kHz
10.Intermodulation distortion : min. 70 dB from 20 Hz to 20 kHz
11.Out-band attenuation : min. 35 dB (above 40 kHz)
12.Channel separation : min. 80 dB from 20 Hz to 20 kHz
13.Automatic switched deemphasis with time constant 15/50 μs
14.Non linearity at -90 dB : ± 2 dB
: typ. 0 dB

Variable headphone (low end)

1.Output voltage : max. 5 Vrms ± 3dB
2.Unbalance left-right : max. ± 1.2dB
3.Output resistance : 120 Ω
4.Load impedance range : 32 Ω to 600 Ω load
5.Output power : 0 to 30 mW into 30 Ω load
: 0 to 50 mW into 150 Ω load
: 0 to 30 mW into 600 Ω load

Audio specs in case of 600 Ω load at 4 Vrms voltage output

6.Signal to noise ratio : typ. 80 dB
7.Dynamic range : min. 70 dB (20 Hz -20 kHz)
8.Total harmonic distortion : min. 60 dB (20 Hz - 20 kHz)
9.Channel separation : min. 70 dB (1 kHz)
: min. 65 dB (31.5 Hz - 16 kHz)

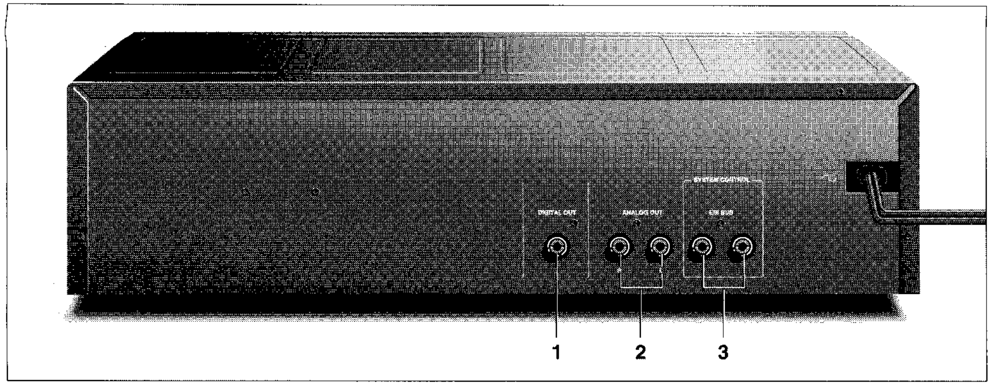
Dimensions and weight

1.Apparatus tray closed : WxDxH 435 x 300 x 90/106 mm
2.Apparatus tray open : WxDxH 435 x 445 x 90/106 mm
3.Weight : 4 kg

Optical read-out system

1.Laser type : Semiconductor AlGaAs
2.Wavelength : 780 nm ± 20 nm
3.Light output (c.w.) : max. 0.5 mW

INSTALLATION



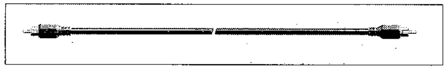
ACCESSORIES

With this player are supplied:
- a connection cable;
- a remote control;
- batteries for the remote control.

- Remove all packaging materials from the player and the accessories.

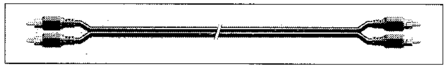
CONNECTIONS

1 **DIGITAL OUT**
This output supplies a digital signal and can therefore only be connected to an input which is suitable for this signal. Use here a lead with one cinch plug on either end.



Never connect this jack to a non-digital input of an amplifier, such as AUX, CD, TAPE, PHONO, etc!

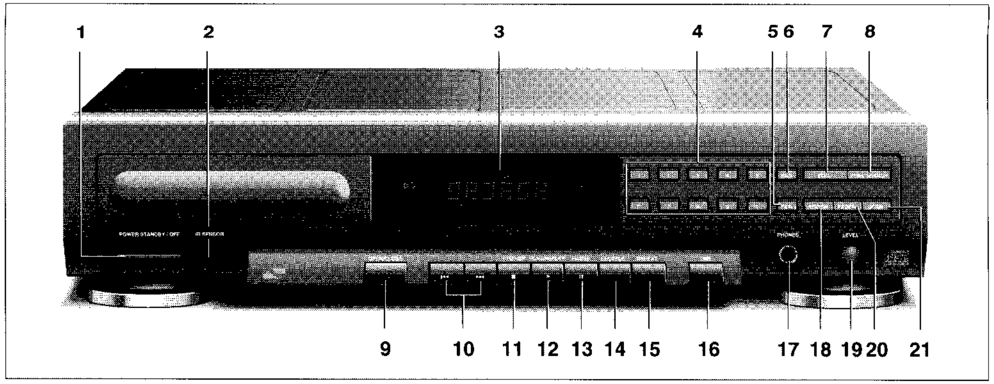
2 **ANALOG OUT**
For connecting to the amplifier.



- Insert a red plug into the 'R' jack and the other plug into the 'L' jack.
- Insert the two other plugs into the corresponding jacks of the CD or AUX input of your amplifier. You can also use the TUNER or TAPE IN-connection, but ***never*** the PHONO input!

3 **ESI BUS** (Enhanced System Intelligence)
For connecting up the equipment when you are incorporating the player in a HiFi system with ESI BUS connection (e.g. the PHILIPS 900 series).
When connecting the ESI BUS to the ESI BUS of the HiFi system the CD player should be ***switched off***.

FUNCTIONAL OVERVIEW



FRONT OF PLAYER

1 **POWER STANDBY/OFF**
Switching on and off.

2 **I**(nfra) **R**(ed) **SENSOR**
- Receives the signals from the remote control.

3 **Display**
Informs you about the functioning of the CD player.

4 **1-0 digit keys**
- Selecting another track during play.
- Selecting a track to start play with.
- Selecting tracks when compiling a program.
- Entering the recording time when making a tape recording.

5 **CLR** (clear)
- Erasing a programme.
- Erasing track numbers from a program.

6 **PRG** (program)
Opening and closing the memory when compiling a programme.

7 **EDIT**
Activating the EDIT function when making a tape recording.

8 **PEAK SEARCH**
Searching the loudest passage (peak) on a CD or in a programme when making a tape recording.

9 **OPEN/CLOSE**
Opening and closing the CD compartment. The compartment also closes when the front is pressed briefly.

10 **⏮ ⏭**
- Selecting another track during play.
- Selecting a track to start play with.
- Fast search to a particular passage during play.
- Selecting the recording mode when making a tape recording.
- Selecting the recording time when making a tape recording.

11 **STOP/CP**
- Stopping play.
- Erasing a programme (CP = Clear Program).

12 **PLAY/REPLAY**
- Starting play.
- Returning to the beginning of a track.

13 **PAUSE**
Interrupting play.

14 **SHUFFLE**
Playing in random order.

15 **REPEAT**
Repeating play.

16 **TIME**
Selecting the time information you want to see.

17 **PHONES**
Connecting headphones.

18 **REVIEW**
Checking a programme.

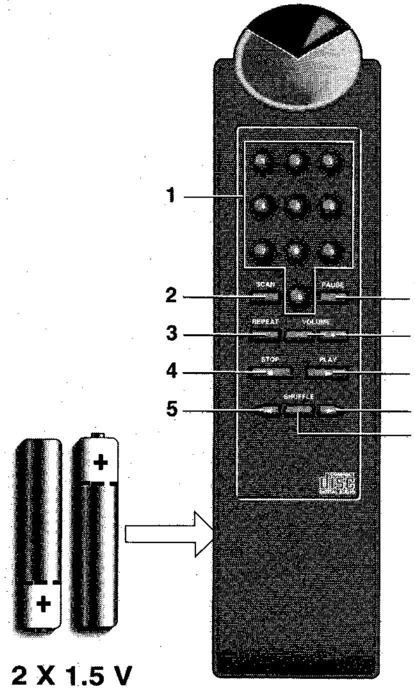
19 **LEVEL**
Adjusting the volume when listening with headphones.

20 **FADER**
Fading in and out during play.

21 **SCAN**
Automatically playing the beginning of each track.

FUNCTIONAL OVERVIEW(ONLY CD921)

REMOTE CONTROL



2 X 1.5 V
R03 / UM4 /AAA

- The life of the batteries of the remote control is around one year. For replacement only use batteries of the type RO3, UM4 or AAA.
- When the player is incorporated in a HiFi system with ESI BUS connection the player can be operated with the remote control of the system.

IMPORTANT!

When connecting the ESI BUS of the CD player to the ESI BUS of the HiFi system the CD player should be ***switched off***.

1 **1-0 digit keys**
- Selecting another track during play.
- Selecting a track to start play with.
- Selecting tracks when compiling a program.
- Entering the recording time when making a tape recording.

2 **SCAN**
Automatically playing the beginning of each track.

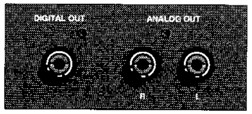
3 **REPEAT**
Repeating play.

4 **STOP**
Stopping play.

5 **|◀ ▶|**
- Selecting another track during play.
- Selecting a track to start play with.
- Fast search to a particular passage during play.
- Selecting the recording mode when making a tape recording.
- Selecting the recording time when making a tape recording.

6 **PAUSE**
Interrupting play.

7 **- VOLUME +**
Adjusting the sound level when the player is connected via the ANALOG OUT jack or the DIGITAL OUT jack to an amplifier or HiFi system *without* its own control.

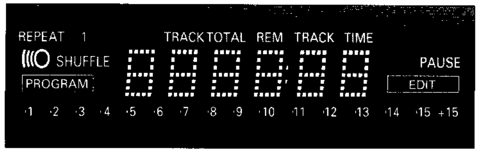


8 **PLAY**
Starting play.

9 **SHUFFLE**
Playing in random order.

FUNCTIONAL OVERVIEW

DISPLAY



REPEAT
Lights up when you repeat a CD or a program.

REPEAT 1
Lights up when you repeat a track.

((O
Lights up when the player receives a command from the remote control *(only if no ESI BUS connection has been made).*

SHUFFLE
Lights up when the tracks are played in random order.

PROGRAM
- Flashes when a program is being compiled.
- Ligts up when a program is being played.

TRACK – Indicates:
- what track is being played;
- the number of tracks on the CD or in a program.

TRACK TIME
Indicates the elapsed playing time of the track being played.

REM(aining) **TRACK TIME**
Indicates the remaining playing time of the track being played.

TOTAL REM(aining) **TIME**
Indicates the remaining playing time of the CD or a program.

TOTAL TIME
Indicates the total playing time of the CD or a program.

PAUSE
Lights up when play is interrupted.

EDIT
Lights up when the player is put into the EDIT mode.

1-15 track number indicator
Shows the number of tracks on the CD.

+ 15
Lights up when there are more than 15 tracks on the CD.

DISPLAY MESSAGES

rEAd

Lights up when the CD's contents list is being scanned.

nod ISC

Lights up when there is no CD in the CD compartment.

no AUdIO dISC

Lights up when insert a non audio CD (CD-ROM, CD-I or CDV).

not POSSIbLE

Lights up when you select a non-existent track number.

GO tO PLAY

Lights up if you try to activate a function for which you must first start play.

GO tO StOP

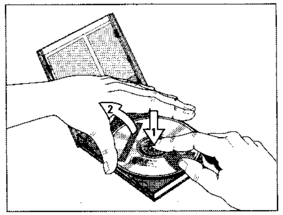
Lights up if you try to activate a function for which you must first stop play.

PLAYBACK

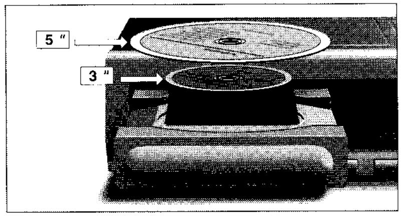
NORMAL PLAYBACK (PLAY/REPLAY)

NOTE! *Use only audio CDs; no CD-ROM, CD- I or CDV.*

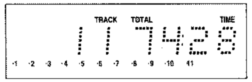
- Press POWER /STANDBY OFF ***1*** to switch the player on.
- – Open the CD compartment by pressing OPEN/CLOSE ***9***.
- – *OPEN* lights up.
- Insert an audio CD, ***printed side up***, and close the compartment



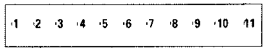
COMPACT
disc
DIGITAL AUDIO

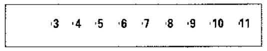


- – *CLOSE* lights up, followed by *READ*. The number of tracks and the playing time of the CD are shown on the display.

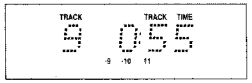


- Press PLAY/REPLAY ***12*** to start play.
  You can also press PLAY/REPLAY immediately after inserting the CD; the compartment then closes automatically.
  You can also close the CD compartment by pressing its front; playback will then start automatically.
- – The number indicator shows how many tracks are on the CD; when a track has been played its number disappears.





- – The track being played is always shown under TRACK and its elapsed playing time is shown under TRACK TIME.



- – Play will stop after the last track.
- Press POWER /STANDBY OFF ***1*** to switch the player off.

You can interrupt playback by pressing PAUSE ***13***; PAUSE then lights up.
Press PLAY/REPLAY ***12*** to restart; if you *first* press PAUSE again and *then* PLAY/REPLAY, the current track starts again from the beginning.
You can also restart play by pressing SCAN ***21***, SHUFFLE ***14*** or the 1-0 digit keys ***4***.
If you press PLAY/REPLAY *during play*, the current track starts again from the beginning.
You can stop playback by pressing STOP/CP ***11*** or OPEN/CLOSE ***9***.

PLAYBACK

SELECTING ANOTHER TRACK (1-0)

- Key in the desired number (numbers consisting of two figures must be keyed in ***within 2 seconds***).
- – The music stops and a moment later the selected track begins to play.

NOT POSSIBLE will light up if you select a non-existent number.
You can also select the number by using ▶▶| or |◀◀ ***10*** *(press less than 0.5 seconds).*

SEARCHING FOR A PASSAGE (|◀◀ ▶▶|)

- Hold |◀◀ ***10*** down to search backwards to the beginning.
- Hold ▶▶| ***10*** down to search forwards to the end.

The searching speed is determined by how long a key is pressed:
- – the first 2 seconds fairly slowly, with sound;
- – then at the maximum speed, with no sound.

If you reach the end of the last track and release ▶▶| ***10***, play will resume a few seconds before the end of the CD.

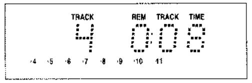
STARTING WITH A PARTICULAR TRACK (1-0)

- Key in the desired number (numbers consisting of two figures must be keyed in ***within 2 seconds***).
- – Play starts from the selected track.

You can also select the number by using ▶▶| or |◀◀ ***10*** *(press less than 0.5 seconds)* and then pressing PLAY/REPLAY ***12***.

SCANNING A CD (SCAN)

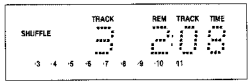
- Press SCAN ***21*** before or during play.
- – If the CD compartment was open, it will now close.
- – *SCAN* lights up for 2 seconds and the first 10 seconds of each track are played in turn.
- – 10 seconds are counted down each time under REM TRACK TIME.



- When the player reaches a track which you wish to hear in full, press SCAN again or PLAY/REPLAY ***12***.

PLAYING THE CD IN RANDOM ORDER (SHUFFLE)

- Press SHUFFLE ***14*** before or during play.
- – If the CD compartment was open, it will now close.
- – SHUFFLE lights up and all the tracks are now played in a random order.

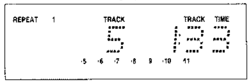


- Press SHUFFLE again if you wish to return to normal play.

If you press |◀◀ ***10***, you will return to a track which has already been played.
If you press TRACK ▶▶| ***10***, you will select any one of the following tracks.
If you press REPEAT ***15***, *twice* the tracks will be repeated in a different order each time, although the first track played will always be the same.

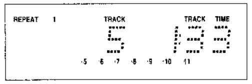
REPEATING PLAY (REPEAT)

Repeating a track:
- Press REPEAT ***15*** before or during playback.
- – REPEAT 1 lights up; the track will now be repeated continuously.



- Press REPEAT *twice* to stop the track being repeated.

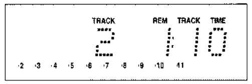
Repeating the CD:
- Press REPEAT ***15*** *twice* before or during playback.
- – REPEAT lights up; the CD will now be repeated continuously.



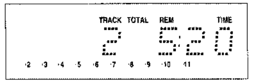
- Press REPEAT again to stop the CD being repeated.

CALLING UP OTHER TIME INFORMATION (TIME)

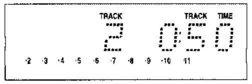
- Press TIME ***16*** wheneveryou want to know the remaining playing time of the track being played (REM TRACK TIME).



- Press TIME again if you wish to know the remaining playing time of the entire CD (TOTAL REM TIME).



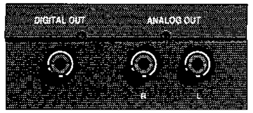
- Press TIME again if you wish to return to the elapsed playing time indication of the current track (TRACK TIME).



PLAYBACK

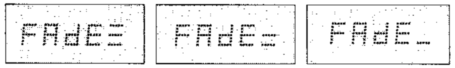
SETTING THE FADE- IN AND FADE-OUT TIME (FADER)

NOTE!

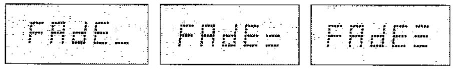


The FADER function can beused if the player is connected to the amplifier or the system via the ANALOG OUT jack or the DIGITAL OUT jack.

- *During play* press FADER **20**.
- – The sound level will now gradually decrease (FADE OUT), after which the player will go into the PAUSE mode.

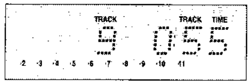


- Press FADER again.
- – Play continues and the sound level will increase again to the originally set level (FADE IN).



SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)

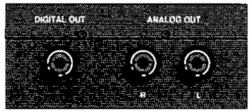
- *In STOP mode*, press PEAK SEARCH **8**.
- – The CD or the program will now be scanned for the loudest passage (the peak).
- – The display shows the track being scanned and its elapsed playing time.



- – When the loudest passage has been found it will be repeated continuously (from 2 seconds before the peak until 2 seconds after the peak)
- You can now adjust your recording device.
- You can stop the scan by pressing STOP/CP **11** or OPEN/CLOSE **9**; if you press PLAY/REPLAY **12**, the CD or the programme will be played from the beginning.

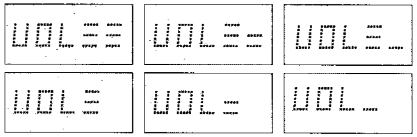
ADJUSTING THE SOUND LEVEL (– VOLUME +)

NOTE!

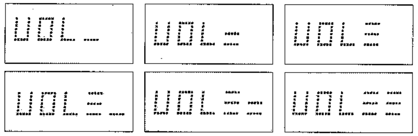


- Use the – VOLUME + keys **7** *(on the remote control)* only if the player is connected via the ANALOG OUT jack or the DIGITAL OUT jack to an amplifier or HiFi system *without* its own remote control.
- The setting chosen with – VOLUME + will be cancelled when the player is switched off.

- Hold – VOLUME **7** *(on the remote control)* pressed down.
- – *VOLUME* lights up; the output signal from the player will now decrease gradually.
- – The successive steps are shown on the display.



- Release the key as soon as the required sound level is obtained.
- Hold VOLUME + **7** *(on the remote control)* pressed down.
- – *VOLUME* lights up; the output signal will now increase again gradually to the maximum level.
- – The successive steps are shown on the display.



- Release the key as soon as the required sound level is obtained.

PROGRAMMING

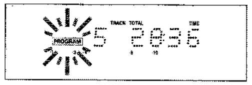
STORING A PROGRAM (PRG and 1-0)

You can store 30 tracks from each CD in any required sequence in a program.

NOTE!

- – *FULL* lights up if you exceed the maximum of 30 tracks.
- – *NOT POSSIBLE* will light up if you select a non-existent number.
- – *USE 0 - 9* lights up if you press ⏮ or ⏭ **10** while programming.

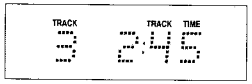
- In STOP mode, press PRG (program) **6** to open the memory.
- – *PROG* lights up and PROGRAM starts flashing.
- Key in the required numbers; every number you key in will be directly included in the program.
- – Each time you key in (= store) a track number, the number of tracks and the playing time of your program will be shown under TRACK and TOTAL TIME.



- – The track number indicator always shows which numbers have been stored.
- Press PRG (program) **6** to quit the PROGRAM mode.
- Press PLAY/REPLAY **12** to play the program.

CHECKING THE PROGRAM (REVIEW)

- Press REVIEW **18** prior to, during or after programmed play.
- – All the numbers appear in the programmed sequence under TRACK; under TRACK TIME you will see the playing time of each track.



NO PROG lights up if no track numbers have yet been stored.
With REVIEW you can proceed more rapidly to the next block of information.

PLAYING THE PROGRAM (PLAY/REPLAY)

- Press PLAY/REPLAY **12**.
- – Playback starts with the first number of the program.

All keys (except, PRG (program) **6**, CLR (clear) **5**, EDIT **7** and PEAK SEARCH **8**) can be used during programmed play.
Search for a particular passage is only possible within the track being played.

ERASING A PROGRAM (STOP/CP, CLR or OPEN/CLOSE)

In PLAY mode:

- Press OPEN/CLOSE **9** or STOP/CP **11** *(twice)*.

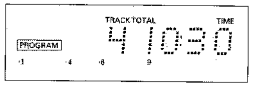
In STOP mode:

- Press OPEN/CLOSE **9**, CLR (clear) **5** or STOP/CP **11**.

- – The programme has now been erased.

ERASING A TRACK FROM THE PROGRAM (CLR)

- Press REVIEW **18** before or after programmed play (STOP mode).
- – All the numbers appear in the programmed sequence under TRACK.
- Press CLR (clear) **5** as soon as the number you wish to erase, appears.
- – The number disappears from the number indicator; it has now been erased.
- – The display shows the remaining tracks and programme time for a few seconds.



NO PROG lights up if no track numbers have yet been stored.

EDIT

The EDIT function has two recording modes in which you can store the recording time of the tape in the player memory.

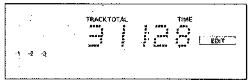
EDIT NORMAL – The player will determine which tracks fit on each side of the tape and will stop after the last track. The tracks will be recorded in the order in which they appear on the CD.
EDIT OPTIMAL – The player now calculates the combination of tracks that will optimize the use of available recording time.

NOTE!

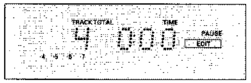
- – The EDIT function ***cannot*** be used for CDs containing more than 30 tracks.
- – The – VOLUME + keys ***7*** *(on the remote control)* may not be used during recording as they affect the strength of the signal from the player.

RECORDING IN THE EDIT MODE

- If required you can *first* search the loudest passage on the CD or in the program and adjust your recording device. This can also be done *after* selecting the recording mode and the recording time.
  For this see 'SEARCHING THE LOUDEST PASSAGE (PEAK SEARCH)' on page 12.
- In STOP mode, press EDIT ***7*** to activate the EDIT mode.
- – EDIT lights up.
- – The display shows *EDIT* (= EDIT NORMAL which is the default setting).
- With ⏮ ⏭ ***10*** you can now select OPT(imal), CANCEL or EDIT (NORMAL) again.
- – The display shows *OPT(imal)*, *CANCEL*, or *EDIT* again.
- Press EDIT ***7*** to store the required recording mode (NORMAL or OPTIMAL).
  If you select CANCEL, the EDIT mode will be cancelled and the player will go back to STOP mode.
- – As soon as you have stored the recording mode the display shows C90 (default setting).
- With ⏮ ⏭ ***10*** you can now select the required recording time:
  C 100, C 105, C 120, C30, C45, C60, C75 or C90.
- Other recording times can be selected using the 1-0 digit keys ***4***; in EDIT NORMAL mode the recording time must be at least equal to the playing time of the first track on the CD or in the program.
  In EDIT OPTIMAL mode the recording time must be at least equal to the playing time of the shortest track on the CD or in the program.
- NOT POSSIBLE lights up if you select a 'wrong' time.
- *Press EDIT **7** to store the required recording time.*
- – The CD player will now go back to STOP mode
- – The track number indicator shows which tracks fit onto side A of the tape.



- – The number of tracks and their playing time will be shown under TRACK and TOTAL TIME.
- You can now record the entire CD or a program from it.
- Press PLAY/REPLAY ***12***
- – The numbers for side A of the tape will be played one after the other.
- – After the last track that fits on side A of the tape, the CD player will go into PAUSE mode; PAUSE lights up.



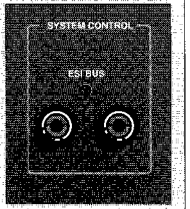
- – The track number indicator shows which tracks fit onto side B of the tape. Under TRACK you will see the number of the first track to be recorded.
- Turn the tape over or select the tape travel direction for side B.
- Press PLAY/REPLAY ***12***.
- – The remaining tracks will now be played.
- – After the last track play will stop; *EDIT CANCELLED* lights up.

NOTE!

- – As soon as you press PLAY/REPLAY ***12*** the other player functions will temporarily be switched off to prevent the recording being interfered with; *EDIT ACTIVE* lights up if you press one of the other buttons during recording.
- – You can quit the EDIT mode by pressing STOP/CP ***11*** or OPEN/CLOSE ***9***; *EDIT CANCELLED* then lights up.
- – EDIT NOT POSSIBLE lights up if you try to record a CD containing more than 30 tracks.

SYSTEM ASPECTS

ENHANCED SYSTEM INTELLIGENCE (ESI)



If the player is connected via the ESI BUS sockets to the ESI BUS sockets of a HiFi system (e.g. the PHILIPS 900 series), the player can be operated via the remote control of the system. In addition, the functions mentioned below are then accessible (if available in the system):

NOTE!

When connecting the ESI BUS to the ESI BUS of the HiFi system the CD player should be ***switched off***.

CD DUBBING (synchronized recording)

- Set the player to the STOP mode.
- Press CD SYNC. (CD DUBBING) on the cassette deck.
- – Peaksearch starts but nothing is being recorded yet.
- After the peak level has been detected you can adjust the recording level.
- Press PLAY on the deck.
- – Recording starts and after 6 seconds play starts again at the beginning of the CD or the program.
- – At the end of side A of the tape, synchronized recording will stop, except when the ⊐ mode has been selected on the cassette deck; the CD player will then go into PAUSE mode. The tape travel direction for side B will be selected automatically and the current track will be recorded again on side B of the tape.
- – After the last track playback and recording will stop.

Synchronized recording in combination with EDIT:

- Set the player to the EDIT mode.
- Select the required recording mode and recording time (see: 'Recording in the EDIT mode' on page 14).
- – Select the ⊐ mode (if available) on the cassette deck
- Press CD SYNC. (CD DUBBING) on the deck.
- – Peaksearch starts but nothing is being recorded yet.
- After the peak level has been detected you can adjust the recording level.
- Press PLAY on the deck.
- – Recording starts and after 6 seconds play starts again at the beginning of the CD or the program.
- – The track number indicator shows which tracks fit onto side A of the tape.
- – After the last track the CD player will go into PAUSE mode.
- – PAUSE lights up.
- – The tape travel direction for side B will be selected automatically and recording will continue on side B.
- – The track number indicator indicates the tracks for side B.
- – After the last track playback and recording will stop.

NOTE!

- – As soon as you start recording, the other player functions will temporarily be switched off to prevent the recording being interfered with; *CD DUBBING ACTIVE* lights up if you press one of the other buttons during play/recording.
- – You can stop playback/recording by pressing STOP/CP ***11*** or OPEN/CLOSE ***9***.
- – The CD DUBBING function will be cancelled if the CD player (or the system) is set to STAND BY mode.

SYSTEM ASPECTS

AUTOMATIC SOURCE SELECTION

If the AUTO SELECT button on the amplifier is pressed, the CD player will automatically be selected as the source, as the soon as you press PLAY/REPLAY **12**, SCAN **21** or SHUFFLE **14**.

AUTOMATIC STOP

If the AUTO SELECT button on the amplifier is pressed, the CD player will automatically go into the PAUSE mode as soon as another source in the system is selected (except when EDIT or CD DUBBING is active).

STAND BY

- With the STAND BY button on the remote control of the system you can set the player to STAND BY mode.
  The player will go to STAND BY mode automatically if the whole system is set to STAND BY mode.
- – If the CD compartment was open, it will now close.
- – Any program present, will be erased.
- Press any of the following buttons to cancel the STAND BY mode:
  PLAY/REPLAY **12**, STOP/CP **11**, SCAN **21**, SHUFFLE **14** 1-0 **4**, EDIT **7**, OPEN/CLOSE **9**, ⏮ ⏭ **10**, or PRG (program) **6**.

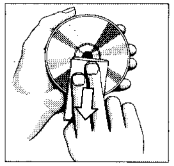
TIMER

Using the TIMER function you can have playback (of a CD or a program) started at a particular time; for this refer to the operating instructions of the tuner (e.g. FT930).

ADDITIONAL INFORMATION

MAINTENANCE

The CDs

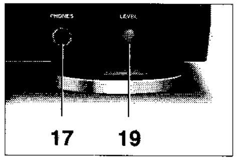


- Never write on the printed side of a CD.
- Do not attach any stickers to the CD.
- Keep the shiny surface of the CD clean. Use a soft lint-free cloth and always wipe the disc in a straight line from center to edge.
- Never use cleaning agents for conventional records.
- Detergents or abrasive cleaning agents should not be used either.

The player

- A chamois leather slightly moistened with water is sufficient for cleaning the player.
- Do not use cleaning agents containing alcohol, spirits, ammonia or abrasives.

CONNECTING HEADPHONES (PHONES)



- Connect headphones with a 6.3 mm jack plug to the PHONES jack **17**.
- The sound level is adjusted with the LEVEL control **19**.

TROUBLE SHOOTING

If a problem occurs, run through the points listed below before taking your player in for repair.
If the problem remains, try to clear it by ***switching the player off and on again***. If this also fails to help, consult your dealer.
Under no circumstances should you repair the player yourself as this will invalidate the warranty!

SYMPTOM	POSSIBLE CAUSE	REMEDY
– Playback of the CD does not start or interruption of playback.	– The CD has been loaded upside down. – No CD inserted. – The CD is badly scratched or dirty. – Moisture condensation on the lens.	• Reload the CD, label side up. • Insert a CD, label side up. • Clean the CD with a soft, lint-free cloth. • Leave the CD player in a warm environment until the moisture evaporates.
– Sound skips (at the same part).	– The CD is dirty.	• Clean the CD with a soft, lint-free cloth.
– The CD skips tracks.	– The CD is damaged or dirty.	• Replace or clean the CD.
– Playback does not start from the first track.	– PRG (program) or SHUFFLE activated.	• Switch off SHUFFLE or clear the program.
– No sound or bad sound.	– Loose or wrong connections. – Strong magnetic fields near the CD player.	• Check connections. • Find another place for the unit or change connections.
– Volume is too low.	– Sound level has been adjusted too low with the – VOLUME + keys on the remote control.	• Adjust sound level.
– No sound or bad sound on headphones.	– Level control set to – position. – Headphones jack is dirty.	• Set level control • Clean jack.
– Remote control does not function.	– Batteries are empty.	• Replace the batteries.
– Remote control commands are not properly received.	– The distance between remote control and CD player is larger than 10 meters.	• Use remote control receiver EM 2200/2201. • Reduce the distance between remote control and CD player.

(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD).
Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance.
Keep components and tools also at this potential.

(F) ATTENTION

Tous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
Leur longévité pourrait être considérablement écourtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

ESD

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).
Unsorgfältige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern.
Sorgen sie dafür, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.
halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen.
Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB)

Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)

Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)

Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)

Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)

Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

CLASS 3B
LASER PRODUCT

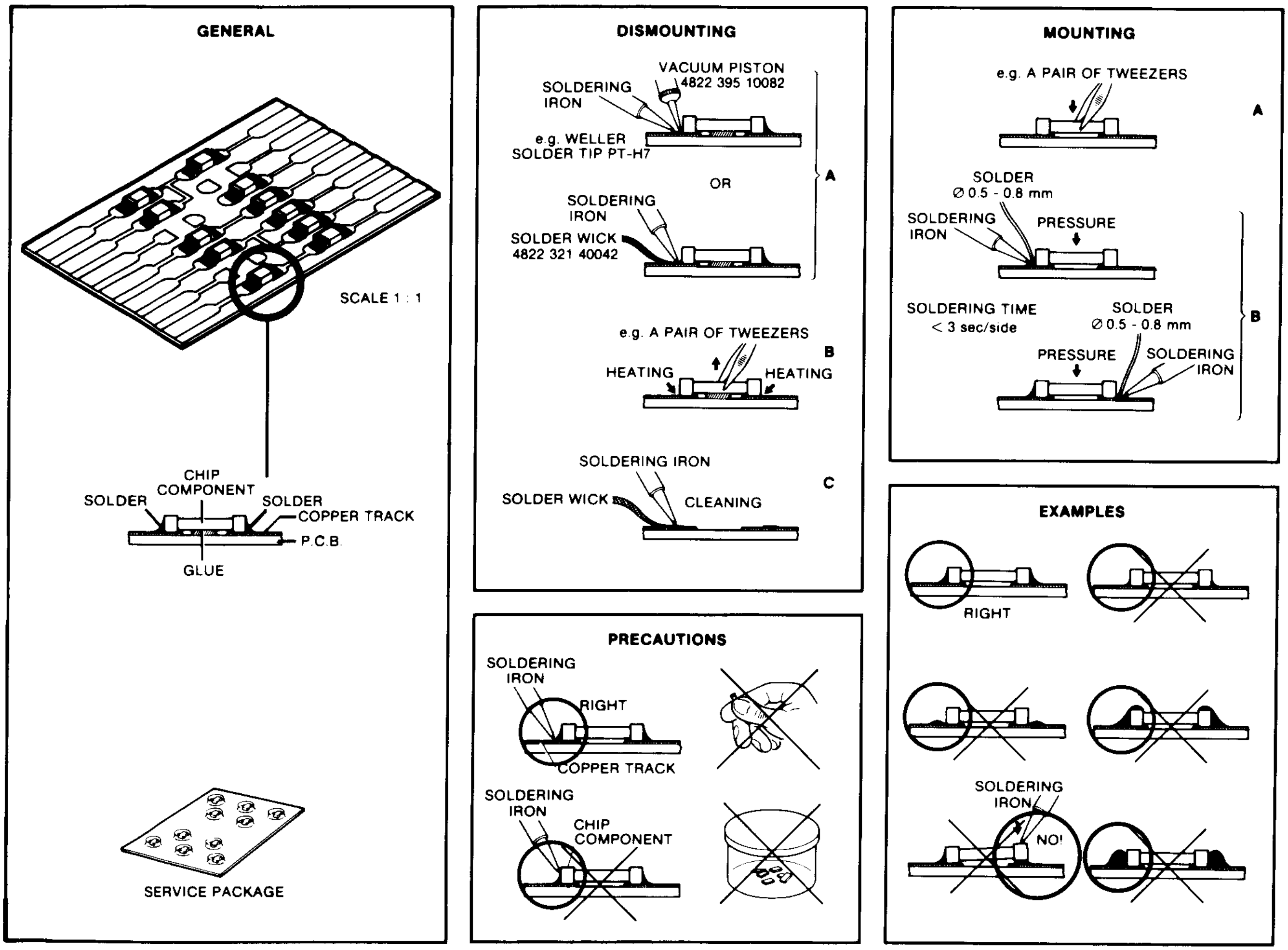
CAUTION	INVISIBLE LASER RADIATION WHEN OPEN AVOID EXPOSURE TO BEAM
VARO!	AVATTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER SÄTTEILYLLE ÄLÄ KATSO SÄTEESEN
VARNING	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD BETRAKTA EJ STRÅLEN
ADVERSEL	USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UNSAETTELSE FOR STRÅLING
DANGER	INVISIBLE LASER RADIATION WHEN OPEN AVOID DIRECT EXPOSURE TO BEAM
VORSICHT	UNSICHTBARE LASERSTRAHLUNG WENN ABDECKUNG GEÖFFNET NICHT DEM STRAHL AUSSETSE N

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne"

CLASS 1
LASER PRODUCT
3122 110 03420

SERVICING HINTS

In the set chip components have been applied. For disassembly and assembly of chip components see the figure below.


GENERAL
SCALE 1 : 1
CHIP COMPONENT
SOLDER
SOLDER
COPPER TRACK
P.C.B.
GLUE
SERVICE PACKAGE
DISMOUNTING
VACUUM PISTON
4822 395 10082
SOLDERING IRON
e.g. WELLER SOLDER TIP PT-H7
OR
SOLDERING IRON
SOLDER WICK 4822 321 40042
A
e.g. A PAIR OF TWEEZERS
HEATING
HEATING
B
SOLDERING IRON
SOLDER WICK
CLEANING
C
MOUNTING
e.g. A PAIR OF TWEEZERS
A
SOLDER
Ø 0.5 - 0.8 mm
SOLDERING IRON
PRESSURE
SOLDERING TIME
< 3 sec/side
SOLDER
Ø 0.5 - 0.8 mm
B
PRESSURE
SOLDERING IRON
PRECAUTIONS
SOLDERING IRON
RIGHT
COPPER TRACK
SOLDERING IRON
CHIP COMPONENT
EXAMPLES
RIGHT
SOLDERING IRON
NO!

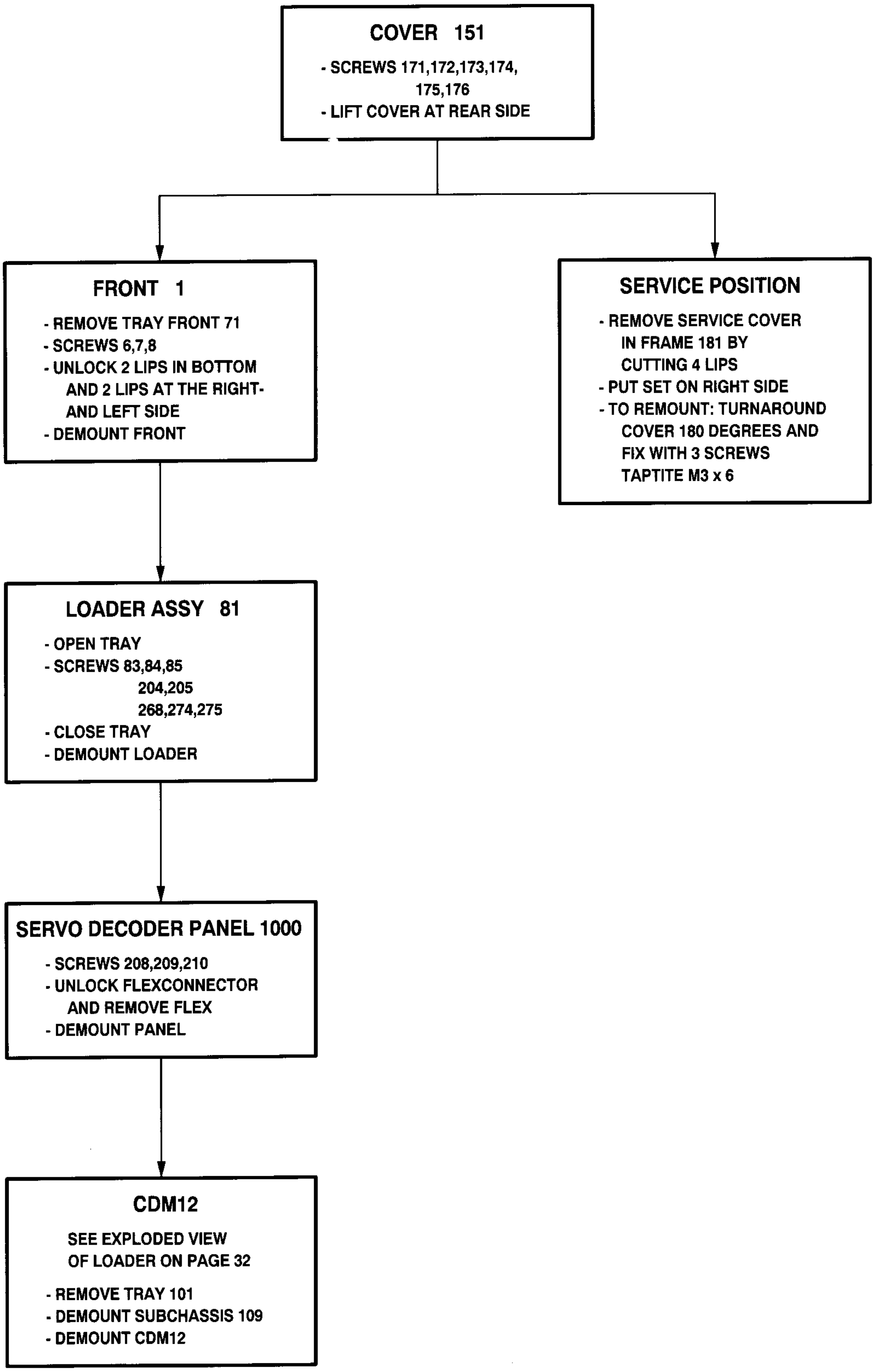
27 012C12

SERVICE TOOLS

Audio signal disc	4822 397 30184
Disc without errors (test disc 5) + disc with DO errors, black spots and fingerprints (test disc 5A	4822 397 30096
Disc (65 min 1kHz)without pause	4822 397 30155
Max. diameter disc (58.0 mm)	4822 397 60141
Torx screwdrivers	
Set (straight)	4822 395 50145
Set (square)	4822 395 50132
13th order filter	4822 395 30204

DEMOUNTING INSTRUCTIONS

OPEN EXPLODED VIEW ON PAGE 33



COVER 151

- SCREWS 171,172,173,174, 175,176
- LIFT COVER AT REAR SIDE

FRONT 1

- REMOVE TRAY FRONT 71
- SCREWS 6,7,8
- UNLOCK 2 LIPS IN BOTTOM AND 2 LIPS AT THE RIGHT- AND LEFT SIDE
- DEMOUNT FRONT

SERVICE POSITION

- REMOVE SERVICE COVER IN FRAME 181 BY CUTTING 4 LIPS
- PUT SET ON RIGHT SIDE
- TO REMOUNT: TURNAROUND COVER 180 DEGREES AND FIX WITH 3 SCREWS TAPTITE M3 x 6

LOADER ASSY 81

- OPEN TRAY
- SCREWS 83,84,85
  204,205
  268,274,275
- CLOSE TRAY
- DEMOUNT LOADER

SERVO DECODER PANEL 1000

- SCREWS 208,209,210
- UNLOCK FLEXCONNECTOR AND REMOVE FLEX
- DEMOUNT PANEL

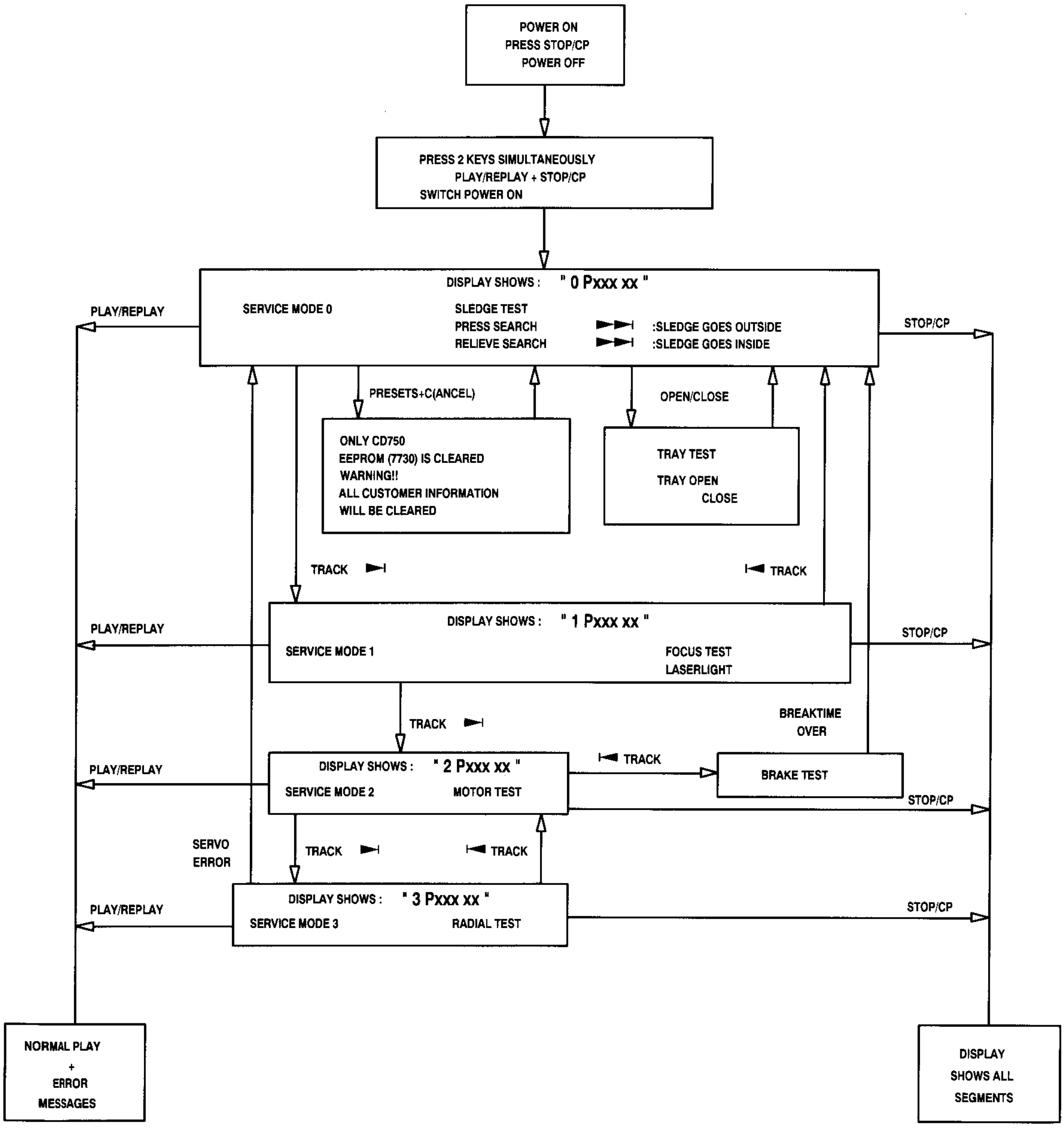
CDM12

SEE EXPLODED VIEW
OF LOADER ON PAGE 32

- REMOVE TRAY 101
- DEMOUNT SUBCHASSIS 109
- DEMOUNT CDM12

HAS 1126
9345

SERVICE TEST PROGRAM


POWER ON
PRESS STOP/CP
POWER OFF
PRESS 2 KEYS SIMULTANEOUSLY
PLAY/REPLAY + STOP/CP
SWITCH POWER ON
DISPLAY SHOWS : " 0 Pxxx xx "
SERVICE MODE 0
SLEDGE TEST
PRESS SEARCH ►►I :SLEDGE GOES OUTSIDE
RELIEVE SEARCH ►►I :SLEDGE GOES INSIDE
PLAY/REPLAY
STOP/CP
PRESETS+C(ANCEL)
ONLY CD750
EEPROM (7730) IS CLEARED
WARNING!!
ALL CUSTOMER INFORMATION
WILL BE CLEARED
OPEN/CLOSE
TRAY TEST
TRAY OPEN
CLOSE
TRACK ►I
I◄ TRACK
DISPLAY SHOWS : " 1 Pxxx xx "
SERVICE MODE 1
FOCUS TEST
LASERLIGHT
PLAY/REPLAY
STOP/CP
TRACK ►I
BREAKTIME
OVER
DISPLAY SHOWS : " 2 Pxxx xx "
SERVICE MODE 2
MOTOR TEST
I◄ TRACK
BRAKE TEST
PLAY/REPLAY
STOP/CP
SERVO
ERROR
TRACK ►I
I◄ TRACK
DISPLAY SHOWS : " 3 Pxxx xx "
SERVICE MODE 3
RADIAL TEST
PLAY/REPLAY
STOP/CP
NORMAL PLAY
+
ERROR
MESSAGES
DISPLAY
SHOWS ALL
SEGMENTS

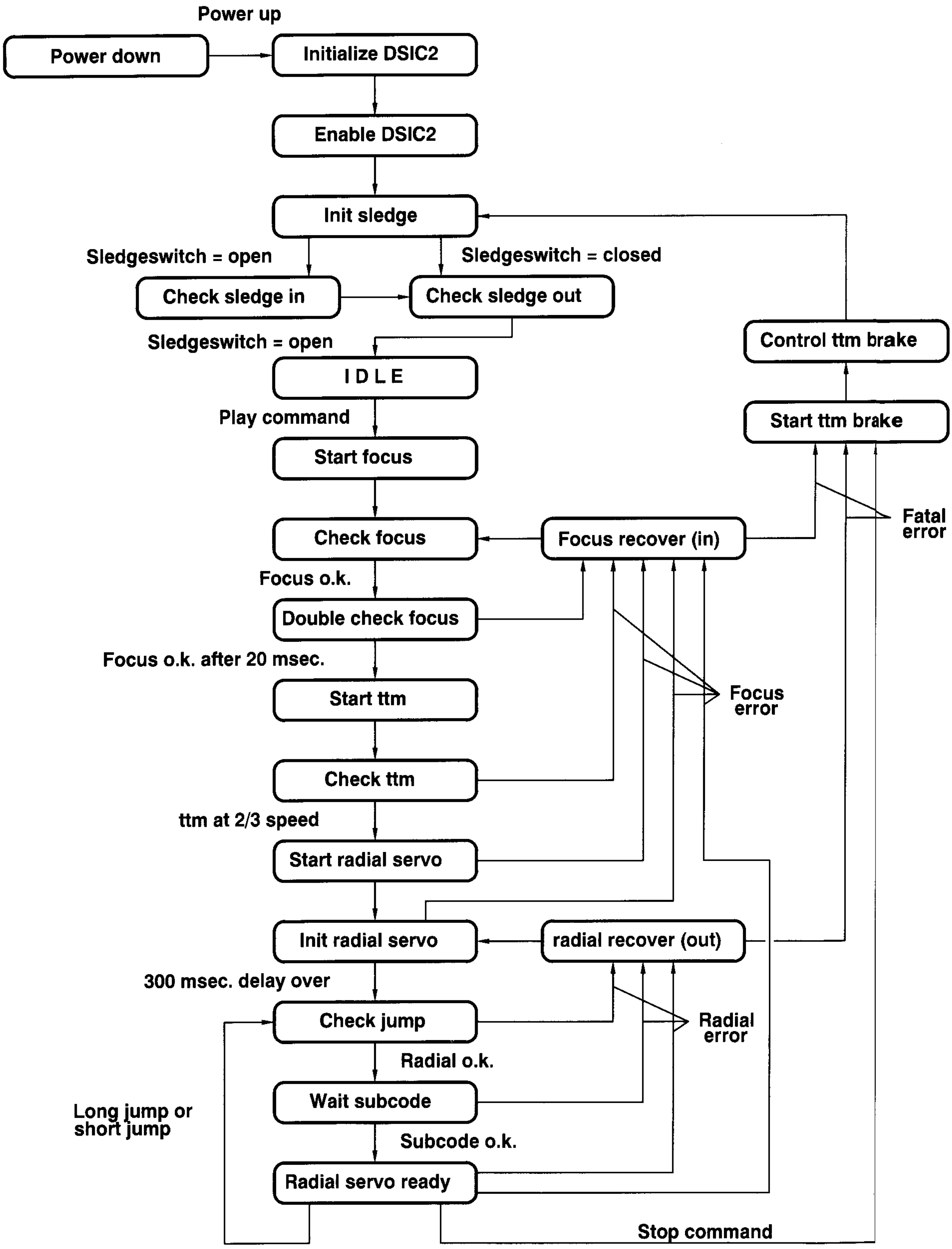
ERROR MESSAGES

-"SLEDGE ERROR"
-"FOCUS ERROR"
-"RADIAL ERROR"
-"MOTOR ERROR"
-"EEP ER"
-"EEP OK"

HAS1120
9342

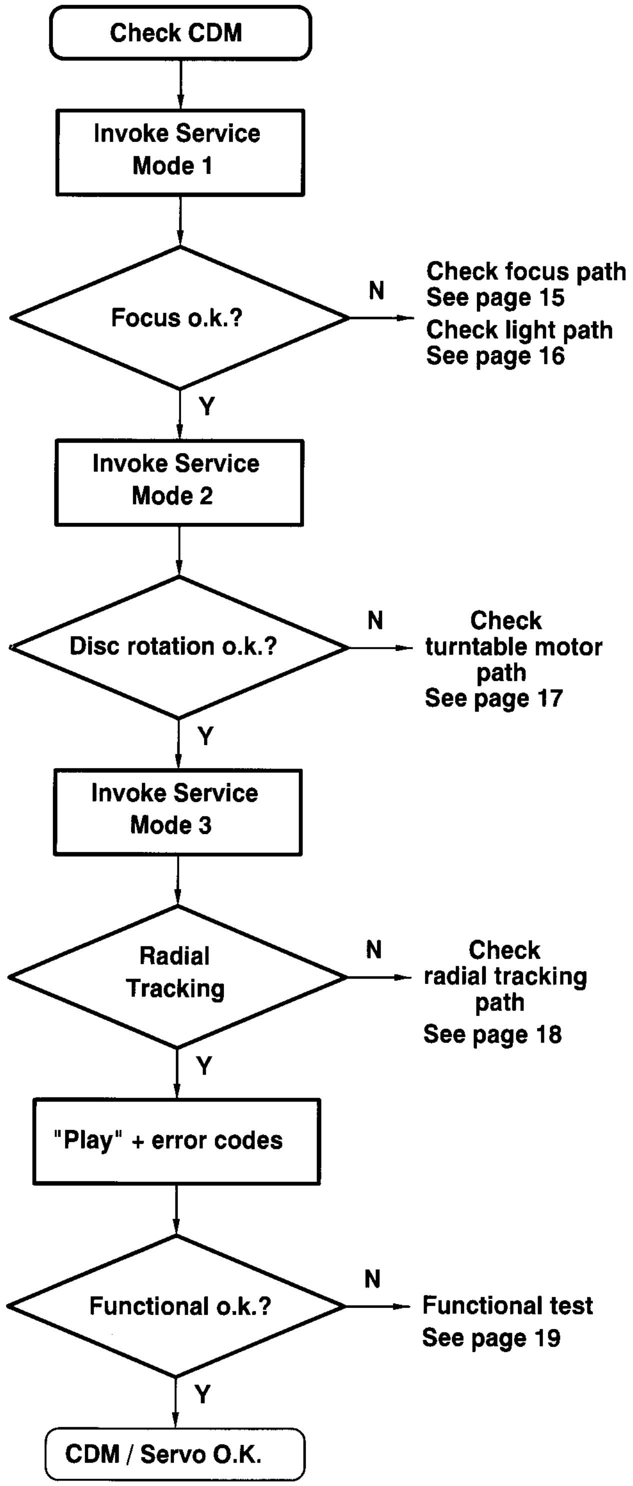
Pxxx = PROGRAM OF MICROPROCESSOR
xx = VERSION OF PROGRAM

5. CDM 12.1 start up diagram.


Power up
Power down
Initialize DSIC2
Enable DSIC2
Init sledge
Sledgeswitch = open
Sledgeswitch = closed
Check sledge in
Check sledge out
Sledgeswitch = open
Control ttm brake
I D L E
Play command
Start ttm brake
Start focus
Fatal error
Check focus
Focus recover (in)
Focus o.k.
Double check focus
Focus o.k. after 20 msec.
Focus error
Start ttm
Check ttm
ttm at 2/3 speed
Start radial servo
Init radial servo
radial recover (out)
300 msec. delay over
Check jump
Radial error
Radial o.k.
Long jump or short jump
Wait subcode
Subcode o.k.
Radial servo ready
Stop command

FAULT FINDING GUIDE CDM 12.1

Main Fault Finding Guide CDM 12.1
System


Check CDM
Invoke Service Mode 1
Focus o.k.?
N
Check focus path
See page 15
Check light path
See page 16
Y
Invoke Service Mode 2
Disc rotation o.k.?
N
Check turntable motor path
See page 17
Y
Invoke Service Mode 3
Radial Tracking
N
Check radial tracking path
See page 18
Y
"Play" + error codes
Functional o.k.?
N
Functional test
See page 19
Y
CDM / Servo O.K.

Listen to kind of "scratching sound" while slowly turning the disc by hand.

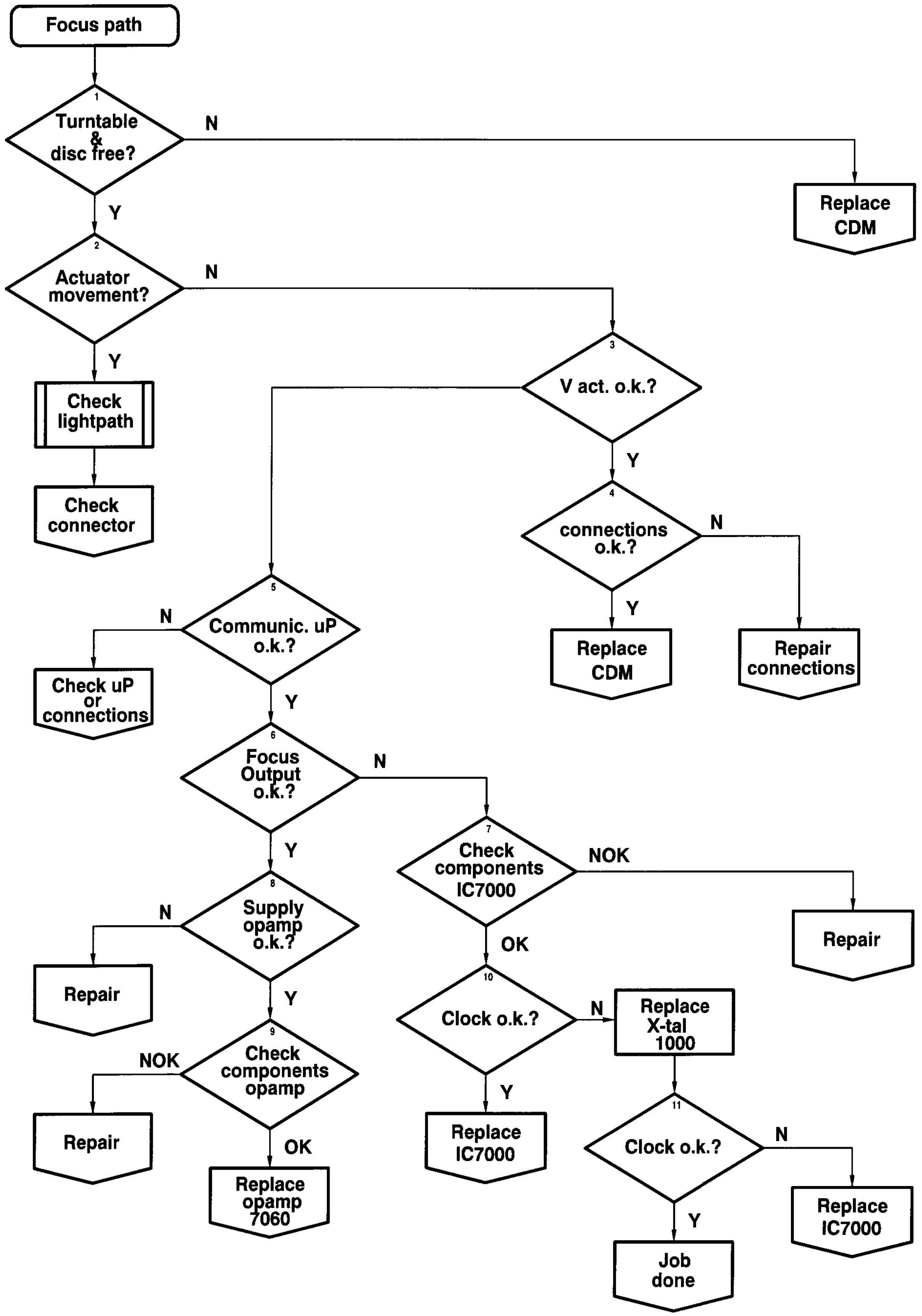
Disc is turning clock wise at normal speed.

Activity on RAD+
(pin 4 connector 1052)

*After "play" starts at track 1 at time 0:00.
*Go to outer track and start again at time 0:00 after max. 6 seconds.

*Try search function.

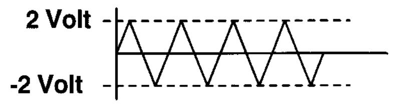
*When going from "Pauze" to "play" music has to restart at the same place.


Focus path
1
Turntable & disc free?
N
Replace CDM
Y
2
Actuator movement?
N
Y
Check lightpath
Check connector
3
V act. o.k.?
Y
4
connections o.k.?
N
Y
Replace CDM
Repair connections
5
Communic. uP o.k.?
N
Check uP or connections
Y
6
Focus Output o.k.?
N
Y
7
Check components IC7000
NOK
Repair
OK
8
Supply opamp o.k.?
N
Repair
Y
9
Check components opamp
NOK
Repair
OK
Replace opamp 7060
10
Clock o.k.?
N
Replace X-tal 1000
Y
Replace IC7000
11
Clock o.k.?
N
Replace IC7000
Y
Job done

1)-Turntable and disc free?
Audible and visible control.

2)-Actuator movement?
Visual control.

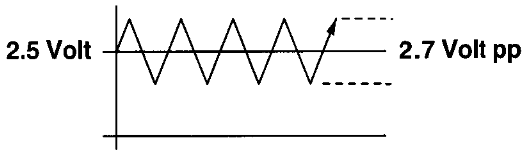
3)-Signals on actuator o.k.?
Triangle wave without disc.
See fig 1.


2 Volt
-2 Volt

4)-Connections to actuator o.k.?
Check flex connector pin 2 and 3.

5)-Communication uP <-> IC7000.
SIDA activity (pin 27 of IC7000).

6)-Focus output o.k.?
See fig 2.
Measure with an 10k/3n3 low-pass filter.


2.5 Volt
2.7 Volt pp

7)-Components o.k.?
Check components R3010,R3011
C2012,C2013
X-tal 1000

8)-Power supply for opamp o.k.?
Check components R3006,R3007
C2008,C2009,C2071,C2074

9)-Check components o.k.?
Check components R3074,R3075,R3076,R3077
R3078,R3079
C2075,C2076

10) & 11)-Pin 17 of IC7000: a frequency of 8.46MHz?

WARNING ! ! ! LASER DAMAGE ! ! !

For measurements on the laser (flexconnector pin 1052-6), certain conditions are absolutely necessary for precaution of laser damage.

The instruction and sequence for measuring laser current is as follows:

-turn off mains power.
-wait for > 1 second
-connect a multimeter (high input impedance, not grounded accross resistor 3022. (*)
-turn on mains power and go to play mode.
-reading of measurement value (current = reading/4R7) (**)
-go to stop and turn off mains power.
-disconnect the multimeter.

* In case of a laser voltage measurement, connect the multimeter accross elcap 2025, using the same procedure as mentioned above.

* * If current is > 95 mA, you can be sure that the laser is defect; If the current is increasing during reading (within +/- 10 seconds), you can be sure that the laser is severely damaged.

* 1)-Laser supply o.k.?
Voltage accross C2025: 4...5V

* * 2)-Laser current o.k.?
Voltage accross R3022: 150...450mV

3)-Lens clean?
Visual control. Check for dust,grease.
Take attention for the blue coating.

4)-Check inputs.
Switch back to service mode 0.
Connect a 2.4 MOhm resistor from
1052 - 9 to 5V: Voltage on pin 5 of IC7000 < 50mV.
1052 - 10 to 5V: Voltage on pin 6 of IC7000 < 50mV.
1052 - 12 to 5V: Voltage on pin 7 of IC7000 < 50mV.
1052 - 11 to 5V: Voltage on pin 10 of IC7000 < 50mV.
1052 - 8 to 5V: Voltage on pin 11 of IC7000 < 50mV.

5)-Diodes o.k.?
Use IR LED of remote control.
A half sine wave must be measured on the diodes (on pin 8,9,10,11,12 of conn. 1052) in the 10mV range.

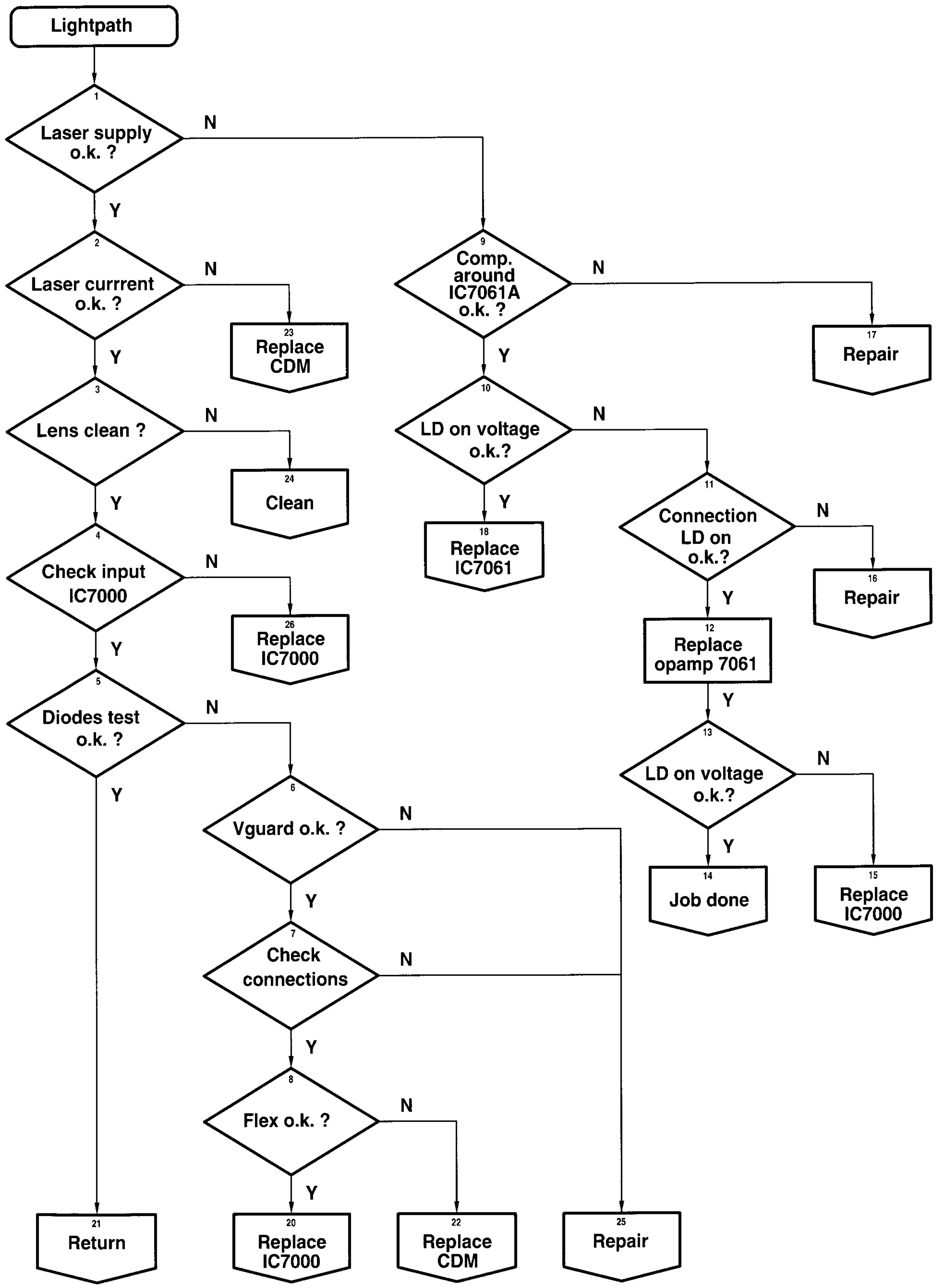
* 6)-V guard o.k.?
Voltage accross C2025: 4...5V

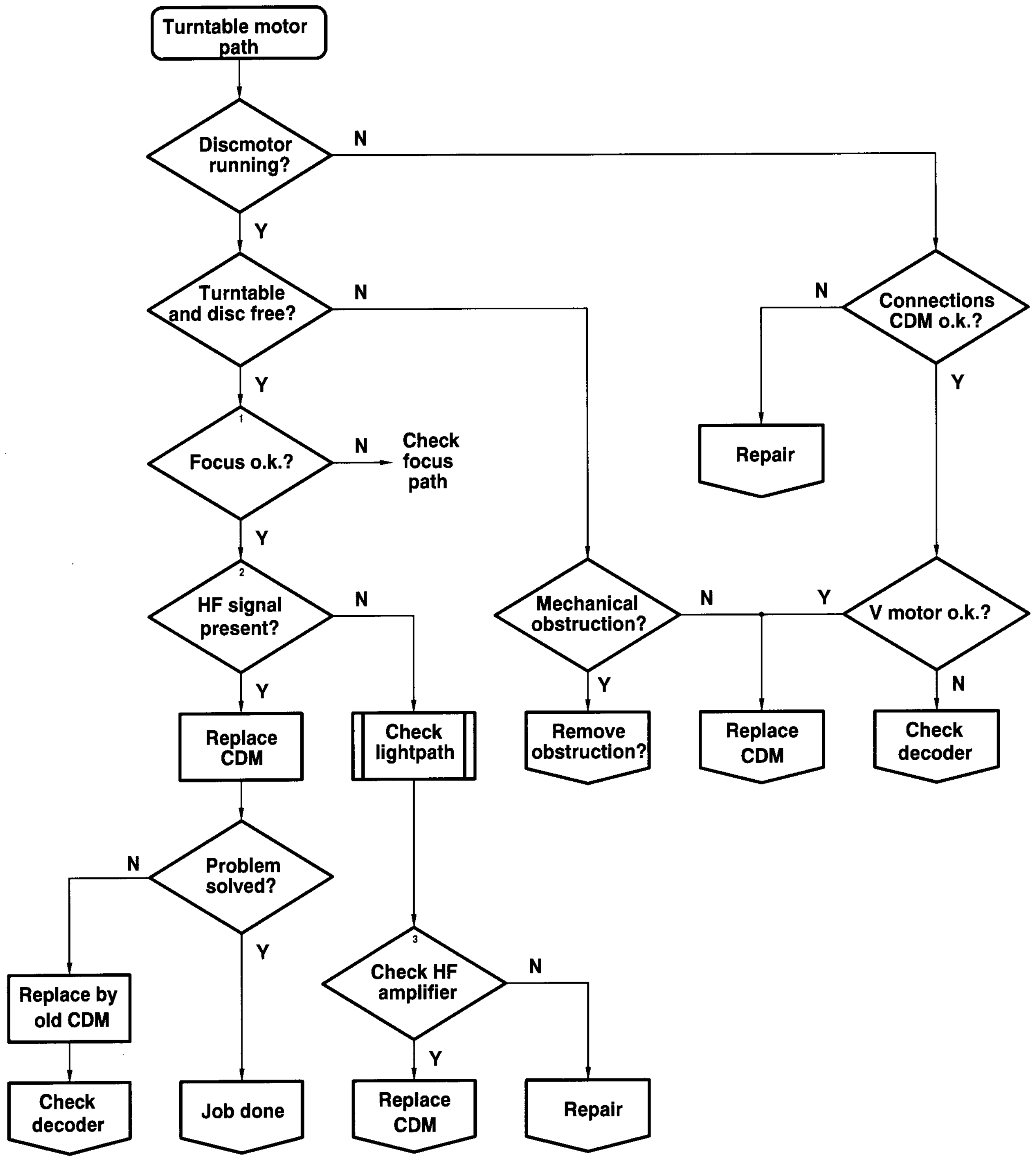
7)-Check connections between main PCB and CDM

8)-Flex o.k.?
Measure diode functions on CDM-flex

9)-Check components around IC7061
R3022,R3021,R3020
C2025,C2060,C2064

10)-LD ON voltage o.k.?
Measure on pin 2 of IC7000:4...5V.


Lightpath
1 Laser supply o.k. ?
N
Y
2 Laser currrent o.k. ?
23 Replace CDM
3 Lens clean ?
24 Clean
4 Check input IC7000
26 Replace IC7000
5 Diodes test o.k. ?
6 Vguard o.k. ?
7 Check connections
8 Flex o.k. ?
21 Return
20 Replace IC7000
22 Replace CDM
25 Repair
9 Comp. around IC7061A o.k. ?
17 Repair
10 LD on voltage o.k.?
18 Replace IC7061
11 Connection LD on o.k.?
16 Repair
12 Replace opamp 7061
13 LD on voltage o.k.?
14 Job done
15 Replace IC7000


Turntable motor path
Discmotor running?
N
Y
Turntable and disc free?
N
Y
1
Focus o.k.?
N
Check focus path
Y
2
HF signal present?
N
Y
Replace CDM
Check lightpath
Problem solved?
N
Y
Replace by old CDM
Check decoder
Job done
3
Check HF amplifier
N
Y
Replace CDM
Repair
Connections CDM o.k.?
N
Y
Repair
Mechanical obstruction?
N
Y
Remove obstruction?
V motor o.k.?
Y
N
Replace CDM
Check decoder

1)-Still in focus (focus o.k.?).
Voltage at pin 9 of connector 1052 > 15mV.

2)-HF-signal present.
VHFI (R3048) > 900mV pp. (testpoint 65).

3)-Check HF-amplifier.

- Sypply 5V?
- Testpoint 17=1.4...1.9V DC?
- VHFI DC =2.9...3.6V?

4)-V motor o.k.?

V motor < 2V: replace CDM.
V motor > 2V: check decoder part.

1)-Radial tracking o.k.?
No OTD (testpoint 67) activity.

2)-Check driver 7060A.
Supply: C2071,C2074.
Components: C2067,C2068,C2069,R3068,R3069,R3070,R3071,R3072,R3073.

3)-Check connections radial actuator.
Switch power off.
Measure impedance of 18 Ohm(+/-20%) between pin 1 and pin 4 of connector 1052.

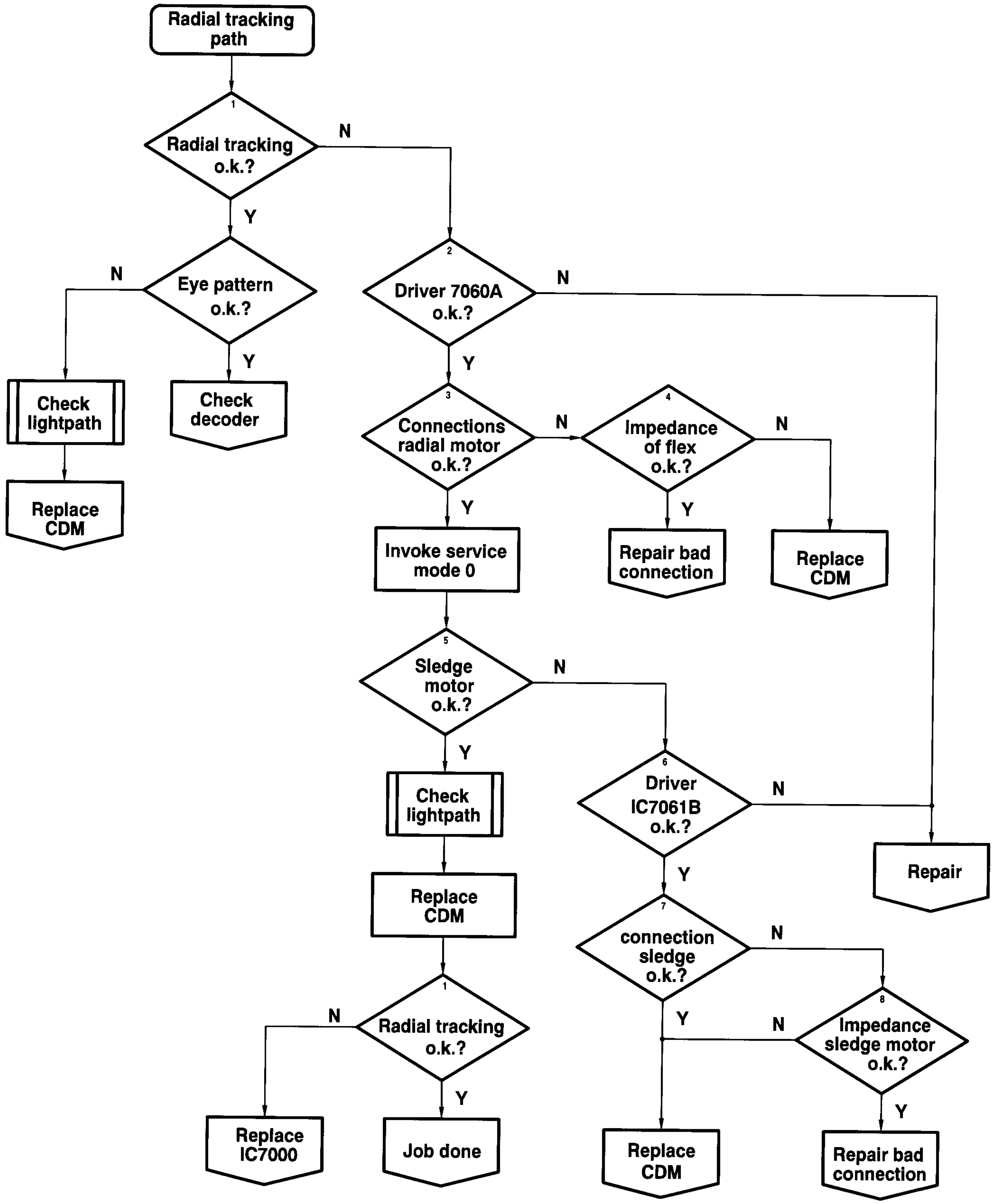
4)-Check impedance on flex.
Power off.
Disconnect CDM-flex.
Measure impedance of 18 Ohm(+/-20%) between pin 1 and pin 4 of connector 1052.

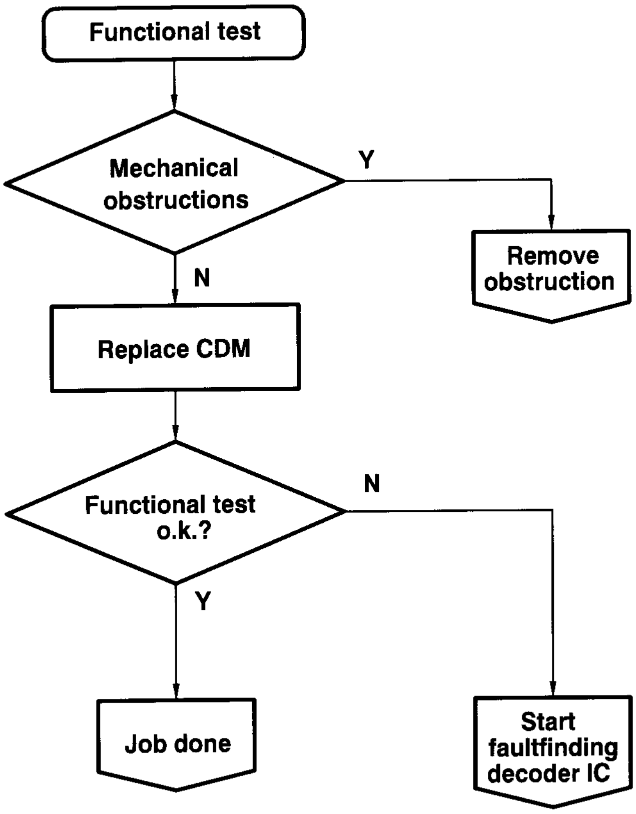
5)-Test sledge.
Power on.
Invoke service mode 0.
Move sledge out (whith search forward key).
Sledge moves to init position after releasing key.
Not o.k. if sledge doesn't move,doesn't reach the outer position or makes a ratling noise at the inner side.

6)-Check driver 7061B.
Supply: C2060,C2064.
Components: C2062,C2063,C2066,R3060,R3062,R3064,R3065,R3066,R3067.

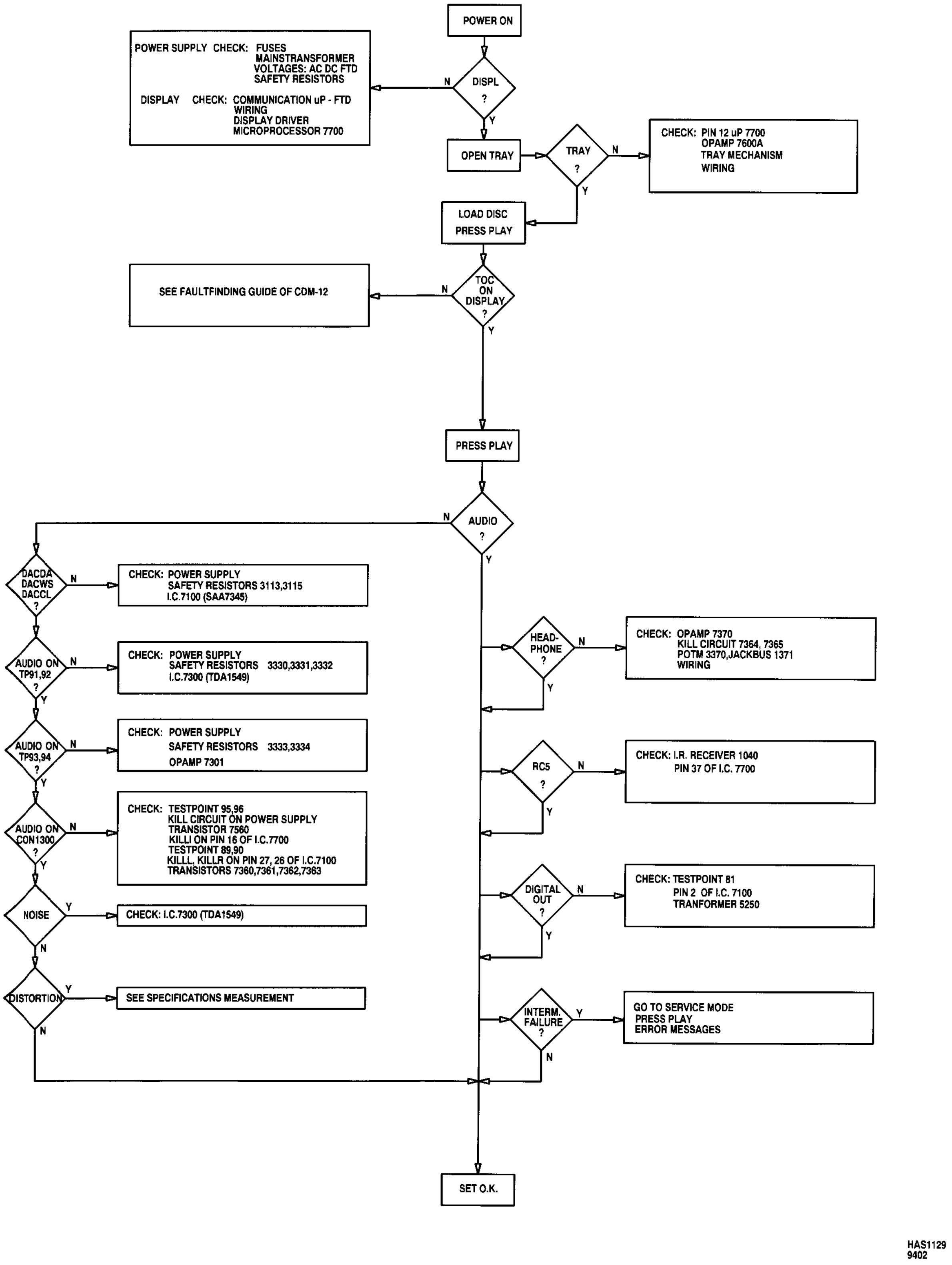
7)-Check connections of sledge drive.
Power off.
Measure impedance of 11 Ohm(+/-20%) between pin 5 and pin 6 of connector 1070.

8)-Check sledge motor.
Remove CDM.
Measure impedance of 11 Ohm(+/-20%) between motor terminals.


Radial tracking path
1
Radial tracking o.k.?
N
Y
Eye pattern o.k.?
N
Y
Check lightpath
Replace CDM
Check decoder
2
Driver 7060A o.k.?
N
Y
3
Connections radial motor o.k.?
N
Y
4
Impedance of flex o.k.?
N
Y
Repair bad connection
Replace CDM
Invoke service mode 0
5
Sledge motor o.k.?
N
Y
Check lightpath
Replace CDM
1
Radial tracking o.k.?
N
Y
Replace IC7000
Job done
6
Driver IC7061B o.k.?
N
Y
Repair
7
connection sledge o.k.?
N
Y
8
Impedance sledge motor o.k.?
N
Y
Replace CDM
Repair bad connection


Functional test
Mechanical obstructions
Y
N
Remove obstruction
Replace CDM
Functional test o.k.?
N
Y
Job done
Start faultfinding decoder IC

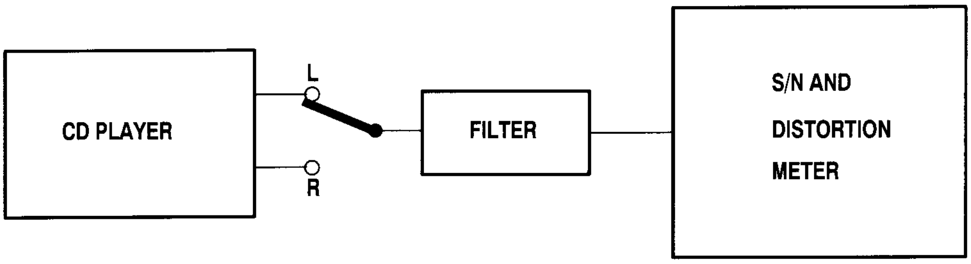
FAULTFINDING GUIDE


POWER ON
DISPL ?
N
Y
POWER SUPPLY CHECK: FUSES
MAINSTRANSFORMER
VOLTAGES: AC DC FTD
SAFETY RESISTORS
DISPLAY CHECK: COMMUNICATION uP - FTD
WIRING
DISPLAY DRIVER
MICROPROCESSOR 7700
OPEN TRAY
TRAY ?
N
Y
CHECK: PIN 12 uP 7700
OPAMP 7600A
TRAY MECHANISM
WIRING
LOAD DISC
PRESS PLAY
TOC ON DISPLAY ?
N
Y
SEE FAULTFINDING GUIDE OF CDM-12
PRESS PLAY
AUDIO ?
N
Y
DACDA DACWS DACCL ?
N
CHECK: POWER SUPPLY
SAFETY RESISTORS 3113,3115
I.C.7100 (SAA7345)
AUDIO ON TP91,92 ?
N
Y
CHECK: POWER SUPPLY
SAFETY RESISTORS 3330,3331,3332
I.C.7300 (TDA1549)
AUDIO ON TP93,94 ?
N
Y
CHECK: POWER SUPPLY
SAFETY RESISTORS 3333,3334
OPAMP 7301
AUDIO ON CON1300 ?
N
Y
CHECK: TESTPOINT 95,96
KILL CIRCUIT ON POWER SUPPLY
TRANSISTOR 7560
KILLI ON PIN 16 OF I.C.7700
TESTPOINT 89,90
KILLL, KILLR ON PIN 27, 26 OF I.C.7100
TRANSISTORS 7360,7361,7362,7363
NOISE
Y
N
CHECK: I.C.7300 (TDA1549)
DISTORTION
Y
N
SEE SPECIFICATIONS MEASUREMENT
HEAD-PHONE ?
N
Y
CHECK: OPAMP 7370
KILL CIRCUIT 7364, 7365
POTM 3370,JACKBUS 1371
WIRING
RC5 ?
N
Y
CHECK: I.R. RECEIVER 1040
PIN 37 OF I.C. 7700
DIGITAL OUT ?
N
Y
CHECK: TESTPOINT 81
PIN 2 OF I.C. 7100
TRANFORMER 5250
INTERM. FAILURE ?
Y
N
GO TO SERVICE MODE
PRESS PLAY
ERROR MESSAGES
SET O.K.
HAS1129
9402

SPECIFICATIONS MEASUREMENT

SIGNAL	AUDIO SIGNALS DISC 1	TESTPOINT	REMARKS
ANALOG OUT LEFT ANALOG OUT RIGHT	TOTAL HARMONIC DISTORTION TRACKS 10 - 23	FILTER OUTPUT	SEE TECHNICAL DATA SEE DRAWING
ANALOG OUT LEFT ANALOG OUT RIGHT	SIGNAL-TO-NOISE RATIO TRACK 1 REFERENCE LEVEL TRACK 49	FILTER OUTPUT	SEE TECHNICAL DATA SEE DRAWING

FILTER = 13TH ORDER FILTER 4822 395 30204

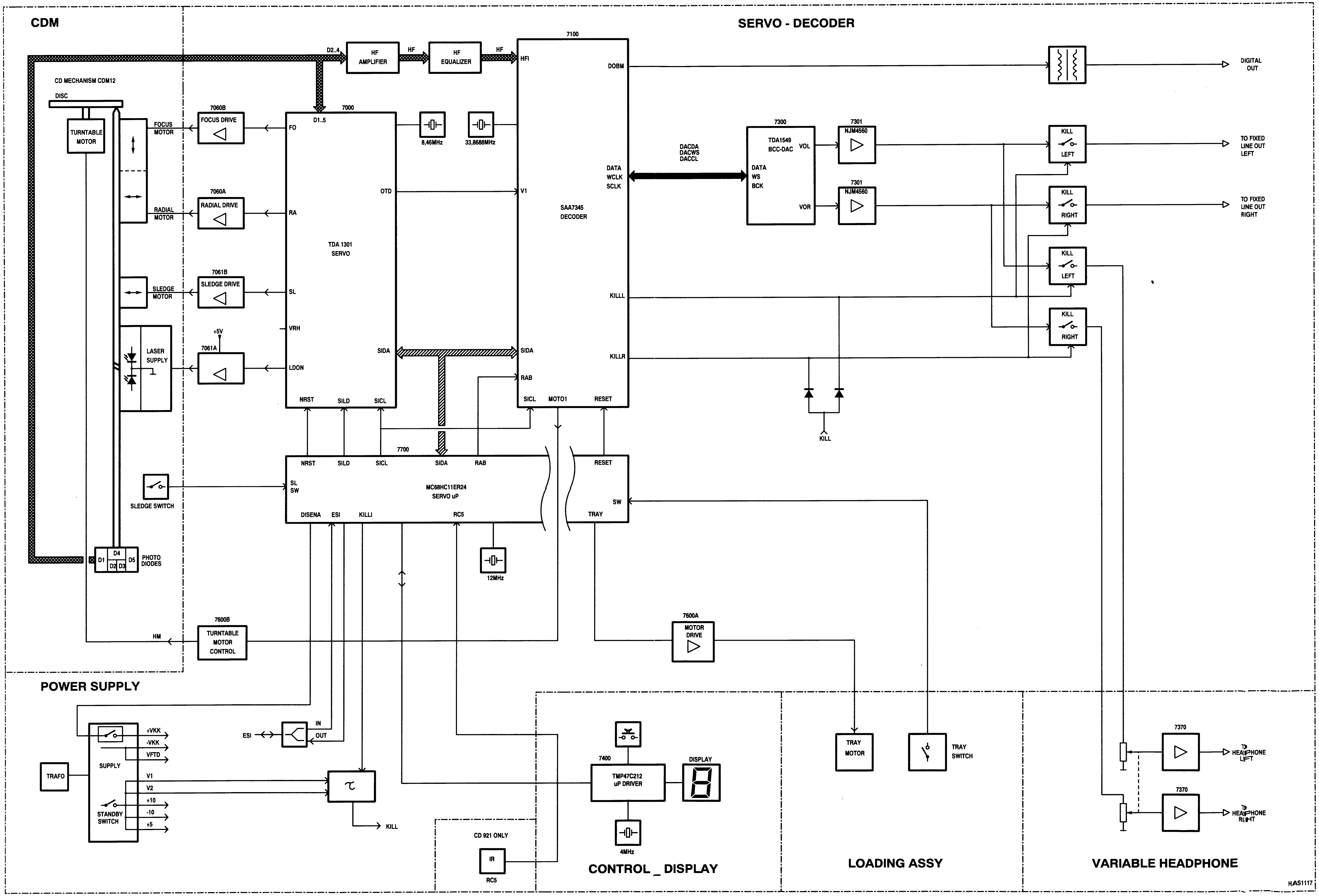


e.g. SOUND TECHNOLOGIE
ST1700B

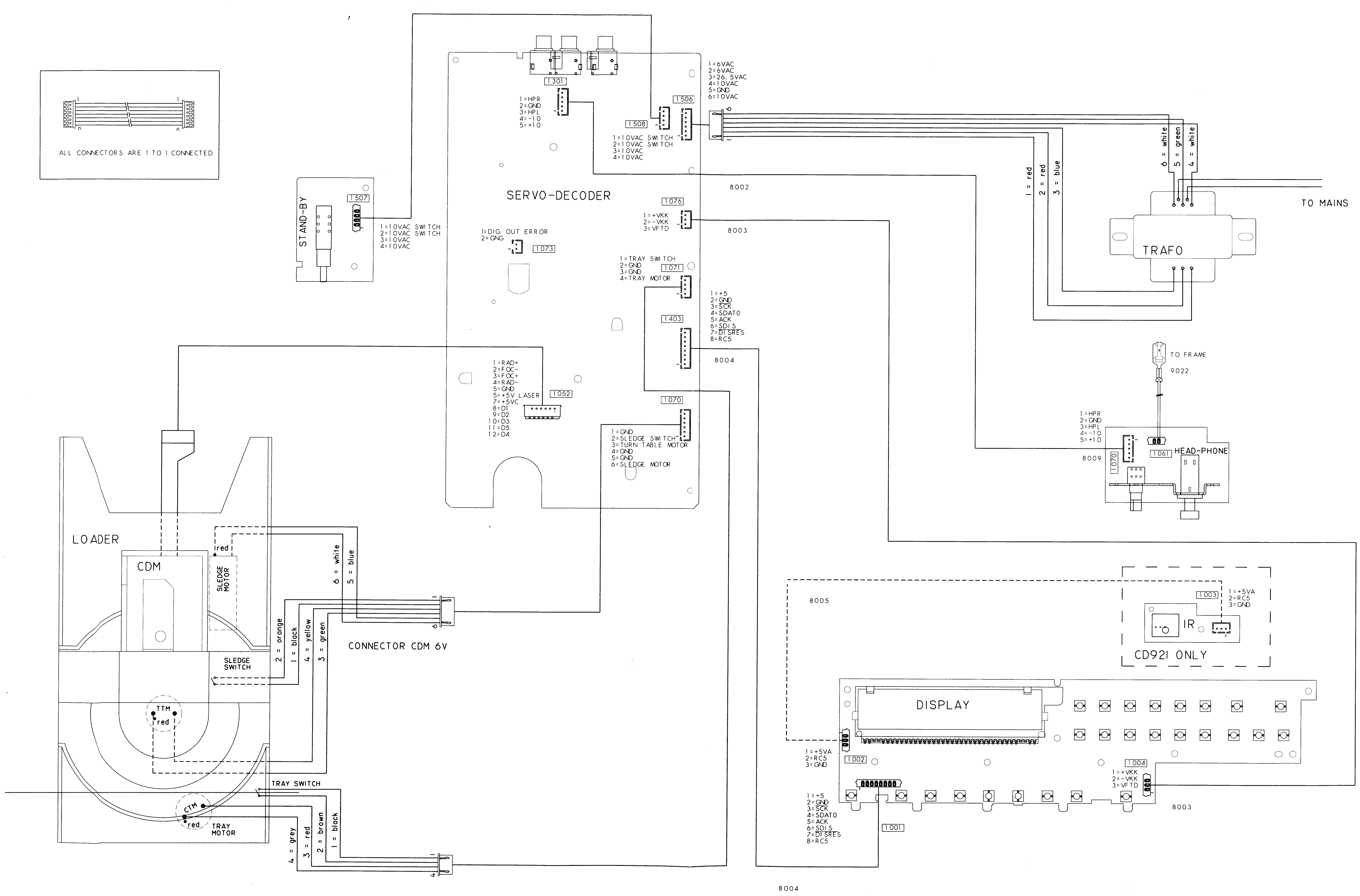
ABBREVIATIONS

BCK	Bit clock input of BCC-DAC TDA1549
CFLG	correction flag output
CL	interface clock input line
CL11	11.2896 MHz clock output
CL16	16.9344 MHz system clock output
CLA	4.2336 MHz microprocessor clock output
CLO	Clock output
CRIN	crystal/resonator input
CROUT	crystal/resonator output
D1-D4	Central diode input of TDA1301
D1-D5	Photodiode signals from CDM12 mechanism
DA	interface data I/O line
DACCL	Bit clock output of CD6 decoder SAA7345
DACDA	Data output of CD6 decoder SAA7345
DACWS	Word select output of CD6 decoder SAA7345
DATA	serial data output/Data input of BCC-DAC TDA1549
DOBM	biphase mark output
FO	Focus actuator output
FOC+	+Connection of focus actuator
FOC-	Ground connection of focus actuator
HF	High-Frequency signal to decoder input
HFIN	comparator signal input
HFREF	comparator common-mode input
IREF	Reference current output
ISLICE	current feedback from data slicer
LDON	Laser drive on
MISC	general purpose DAC output
MOTO1	motor output 1
MOTO2	motor output 2
NRST	Reset input
OTD	Off track detector
PORE	power-on reset enable input(active low)
R1-R2	Satellite diode signal input
RA	Radial actuator output
RAB	interface R/W and acknowledge input
RAD+	+Connection of radial actuator
RAD-	Ground connection of radial actuator
SCLK	serial bit clock output
SICL	Serial interface clock
SIDA	Serial interface data
SILD	Serial interface load
SL OUT	+Connection of sledge motor
SL	Sledge output
TEST1	test input
TEST2	test input
TS1-TS2	Test inputs
V1-5	Versatile input pins
VOL	Left channel output
VOR	Right channel output
WCLK	Word clock output
WS	Word select input of BCC-DAC TDA1549
XTLI	Oscillator input
XTLO	Oscillator output
XTLR	Oscillator reference

BLOCK DIAGRAM

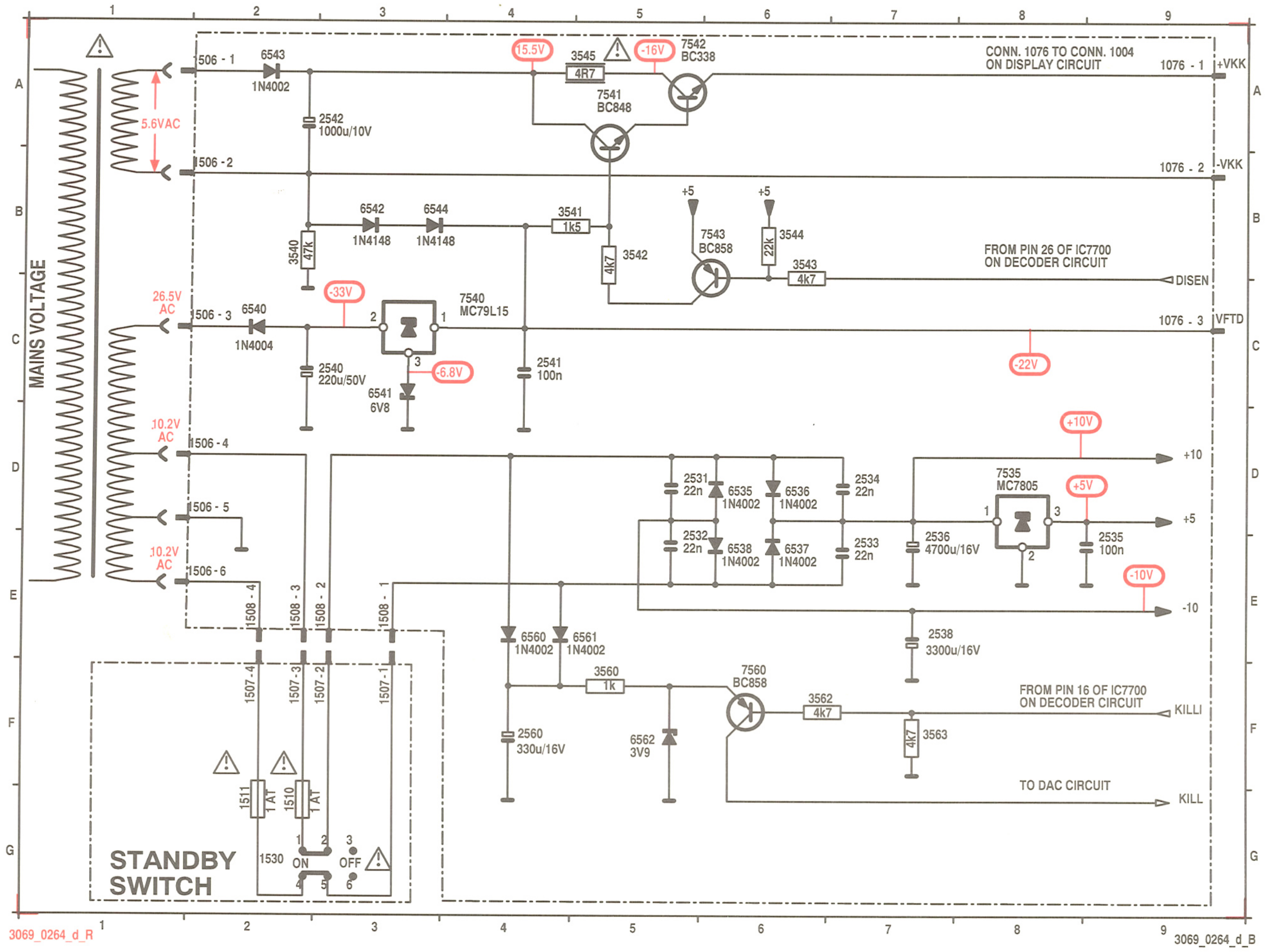

CDM
SERVO - DECODER
CD MECHANISM CDM12
DISC
TURNTABLE MOTOR
FOCUS MOTOR
RADIAL MOTOR
SLEDGE MOTOR
LASER SUPPLY
D1
D2
D3
D4
D5
PHOTO DIODES
SLEDGE SWITCH
7060B
FOCUS DRIVE
7060A
RADIAL DRIVE
7061B
SLEDGE DRIVE
+5V
7061A
D2..4
HF AMPLIFIER
HF
HF EQUALIZER
HF
7000
D1..5
FO
RA
SL
VRH
LDON
OTD
SIDA
NRST
SILD
SICL
TDA 1301 SERVO
8,46MHz
33,8688MHz
7100
HFI
DOBM
V1
SAA7345 DECODER
DATA
WCLK
SCLK
KILLL
KILLR
SIDA
RAB
SICL
MOTO1
RESET
DACDA
DACWS
DACCL
7300
TDA1549 BCC-DAC
DATA
WS
BCK
VOL
VOR
7301
NJM4560
7301
NJM4560
DIGITAL OUT
KILL
LEFT
KILL
RIGHT
KILL
LEFT
KILL
RIGHT
TO FIXED LINE OUT LEFT
TO FIXED LINE OUT RIGHT
KILL
7700
NRST
SILD
SICL
SIDA
RAB
RESET
SL SW
MC68HC11ER24 SERVO uP
SW
DISENA
ESI
KILLI
RC5
TRAY
12MHz
7600B
HM
TURNTABLE MOTOR CONTROL
7600A
MOTOR DRIVE
POWER SUPPLY
TRAFO
SUPPLY
STANDBY SWITCH
+VKK
-VKK
VFTD
V1
V2
+10
-10
+5
ESI
IN
OUT
τ
KILL
CD 921 ONLY
IR
RC5
7400
TMP47C212 uP DRIVER
DISPLAY
4MHz
CONTROL _ DISPLAY
TRAY MOTOR
TRAY SWITCH
LOADING ASSY
7370
7370
HEADPHONE LEFT
HEADPHONE RIGHT
VARIABLE HEADPHONE
HAS1117

WIRING DIAGRAM


8001
ALL CONNECTORS ARE 1 TO 1 CONNECTED
1
1
n
n
SERVO-DECODER
1301
1=HPR
2=GND
3=HPL
4=-10
5=+10
1508
1506
1=10VAC SWITCH
2=10VAC SWITCH
3=10VAC
4=10VAC
1=6VAC
2=6VAC
3=26. 5VAC
4=10VAC
5=GND
6=10VAC
8002
1076
1=+VKK
2=-VKK
3=VFTD
8003
1=DIG. OUT ERROR
2=GNG
1073
1=TRAY SWITCH
2=GND
3=GND
4=TRAY MOTOR
1071
1403
1=+5
2=GND
3=SCK
4=SDATO
5=ACK
6=SDIS
7=DISRES
8=RC5
8004
1=RAD+
2=FOC-
3=FOC+
4=RAD-
5=GND
5=+5V LASER
7=+5VC
8=D1
9=D2
10=D3
11=D5
12=D4
1052
1070
1=GND
2=SLEDGE SWITCH
3=TURN TABLE MOTOR
4=GND
5=GND
6=SLEDGE MOTOR
STAND-BY
1507
1=10VAC SWITCH
2=10VAC SWITCH
3=10VAC
4=10VAC
1 = red
2 = red
3 = blue
6 = white
5 = green
4 = white
TRAFO
TO MAINS
TO FRAME
9022
1=HPR
2=GND
3=HPL
4=-10
5=+10
8009
1070
1061
HEAD-PHONE
LOADER
CDM
red
SLEDGE MOTOR
6 = white
5 = blue
2 = orange
1 = black
4 = yellow
3 = green
CONNECTOR CDM 6V
SLEDGE SWITCH
TTM
red
TRAY SWITCH
CTM
red
TRAY MOTOR
4 = grey
3 = red
2 = brown
1 = black
1
6
1
4
8005
1003
1=+5VA
2=RC5
3=GND
IR
CD921 ONLY
DISPLAY
1=+5VA
2=RC5
3=GND
1002
1004
1=+VKK
2=-VKK
3=VFTD
8003
1=+5
2=GND
3=SCK
4=SDATO
5=ACK
6=SDIS
7=DISRES
8=RC5
1001
8004

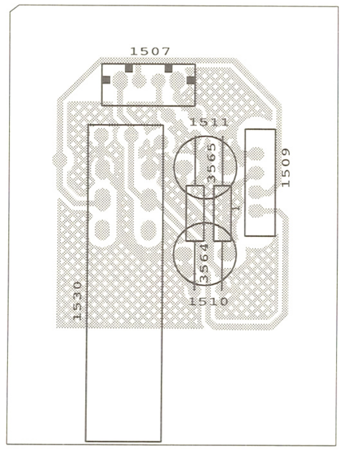
HASII21
9343

POWER SUPPLY CIRCUIT DIAGRAM


1
2
3
4
5
6
7
8
9
A
B
C
D
E
F
G
MAINS VOLTAGE
5.6VAC
26.5V AC
10.2V AC
10.2V AC
506 - 1
506 - 2
506 - 3
1506 - 4
1506 - 5
1506 - 6
6543
1N4002
2542
1000u/10V
15.5V
3545
4R7
-16V
7542
BC338
7541
BC848
CONN. 1076 TO CONN. 1004
ON DISPLAY CIRCUIT
1076 - 1
+VKK
1076 - 2
-VKK
6542
1N4148
6544
1N4148
3541
1k5
3540
47k
3542
4k7
+5
+5
7543
BC858
3544
22k
3543
4k7
FROM PIN 26 OF IC7700
ON DECODER CIRCUIT
DISEN
-33V
6540
1N4004
7540
MC79L15
2540
220u/50V
-6.8V
6541
6V8
2541
100n
1076 - 3
VFTD
-22V
+10V
2531
22n
6535
1N4002
6536
1N4002
2534
22n
7535
MC7805
+5V
+10
2532
22n
6538
1N4002
6537
1N4002
2533
22n
2536
4700u/16V
2535
100n
+5
-10V
-10
2538
3300u/16V
1508 - 4
1508 - 3
1508 - 2
1508 - 1
1507 - 4
1507 - 3
1507 - 2
1507 - 1
6560
1N4002
6561
1N4002
3560
1k
7560
BC858
3562
4k7
FROM PIN 16 OF IC7700
ON DECODER CIRCUIT
KILLI
2560
330u/16V
6562
3V9
3563
4k7
TO DAC CIRCUIT
KILL
1511
1 AT
1510
1 AT
1530
ON
OFF
STANDBY
SWITCH
3069_0264_d_R
3069_0264_d_B

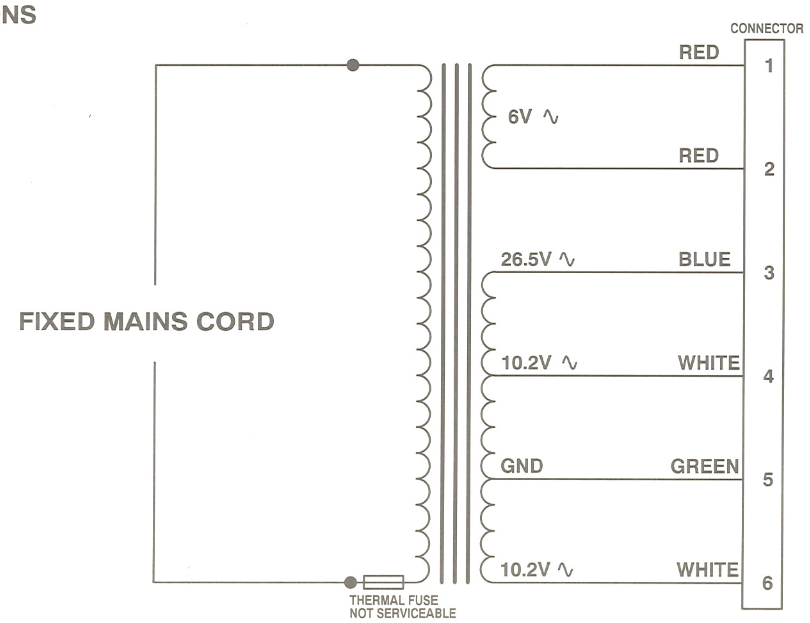
1076	A 9
1076	B 9
1076	C 9
1506	A 2
1506	B 2
1506	C 2
1506	D 2
1506	D 2
1506	E 2
1507	F 3
1507	F 3
1507	F 2
1507	F 2
1508	E 3
1508	E 3
1508	E 2
1508	E 2
1509	F 1
1509	F 1
1509	F 1
1509	F 2
1510	G 2
1511	G 2
1530	G 2
2531	D 5
2532	E 5
2533	E 7
2534	D 7
2535	E 9
2536	E 7
2538	E 7
2540	C 3
2541	C 4
2542	A 3
2560	F 4
3540	B 2
3541	B 4
3542	B 5
3543	B 6
3544	B 6
3545	A 5
3560	F 5
3562	F 6
3563	F 7
6535	D 6
6536	D 6
6537	E 6
6538	E 6
6540	C 2
6541	C 3
6542	B 3
6543	A 2
6544	B 3
6560	E 4
6561	E 5
6562	F 5
7535	D 8
7540	C 4
7541	A 5
7542	A 5
7543	B 6
7560	F 6

SWITCH PANEL


1507
1511
3565
1509
3564
1510
1530

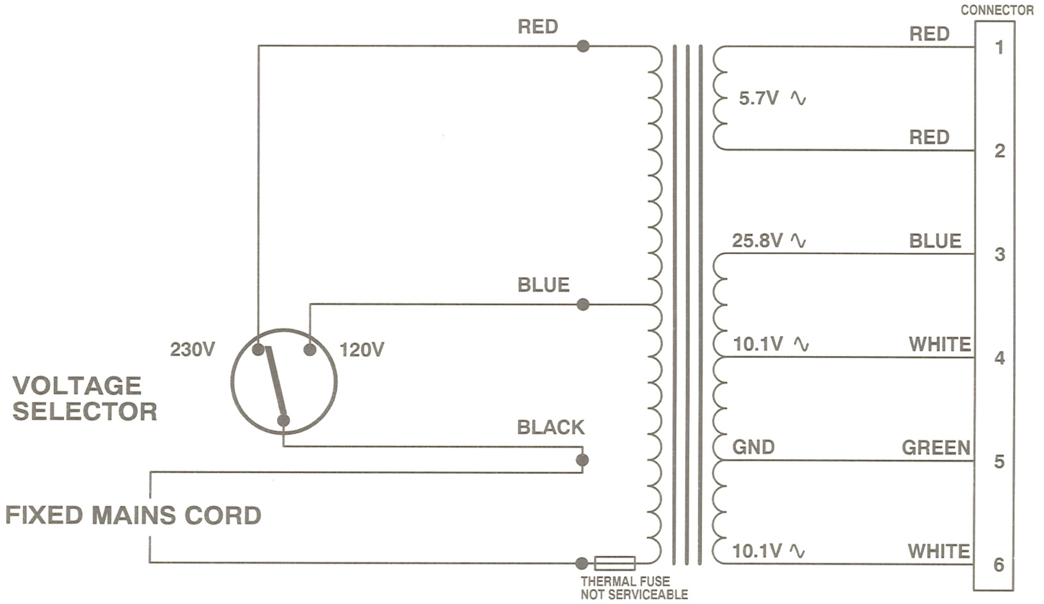
TRANSFORMER CONNECTIONS

/00/05/06/17 VERSIONS


FIXED MAINS CORD
CONNECTOR
RED
1
6V ∿
RED
2
26.5V ∿
BLUE
3
10.2V ∿
WHITE
4
GND
GREEN
5
10.2V ∿
WHITE
6
THERMAL FUSE
NOT SERVICEABLE

VERSION	MAINS VOLTAGE	SERVICE CODE
/00	220V-230V	4822 146 31337
/05	240V	4822 146 31339
/06	100V	4822 146 31345
/17	117V	4822 146 31341

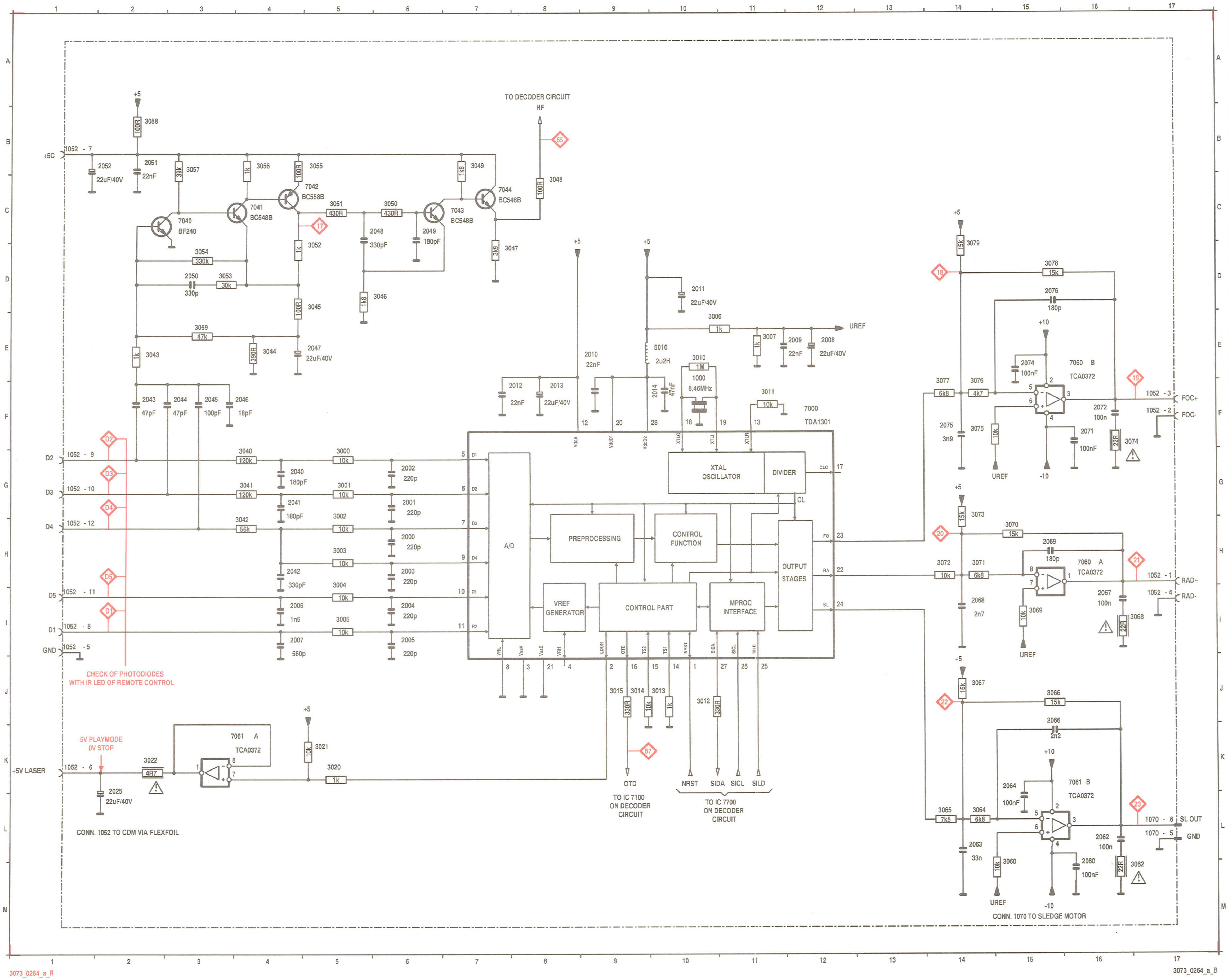
/01 VERSION


RED
BLUE
BLACK
230V
120V
VOLTAGE
SELECTOR
FIXED MAINS CORD
CONNECTOR
RED
1
5.7V ∿
RED
2
25.8V ∿
BLUE
3
10.1V ∿
WHITE
4
GND
GREEN
5
10.1V ∿
WHITE
6
THERMAL FUSE
NOT SERVICEABLE

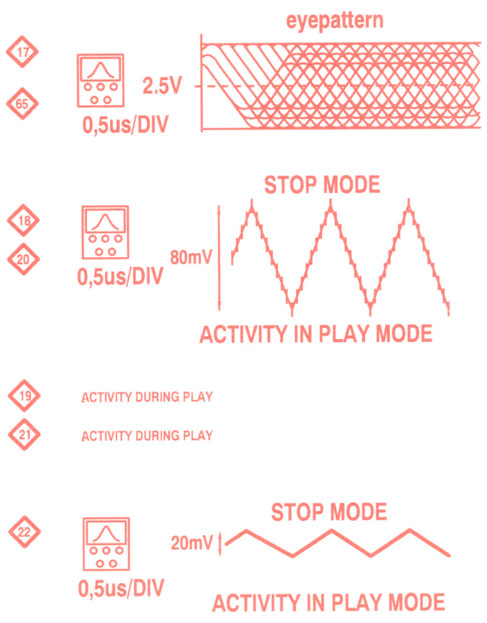
POSITION	MAINS VOLTAGE	SERVICE CODE
120V	110V-127V	4822 146 31338
230V	220V-240V	

TRANSFORMER AND VOLTAGE SELECTOR ARE ONE ASSEMBLY

SERVO CIRCUIT DIAGRAM


TO DECODER CIRCUIT
HF
+5C
1052 - 7
2052
22uF/40V
2051
22nF
3058
100R
3057
39k
3056
1k
3055
100R
3049
1k8
3048
100R
7040
BF240
7041
BC548B
7042
BC558B
7043
BC548B
7044
BC548B
3051
430R
3050
430R
2048
330pF
2049
180pF
3047
3k9
3052
1k
3054
330k
2050
330p
3053
30k
3045
100R
3046
1k8
3059
47k
3043
1k
3044
390R
2047
22uF/40V
2043
47pF
2044
47pF
2045
100pF
2046
18pF
D2
1052 - 9
D3
1052 - 10
D4
1052 - 12
D5
1052 - 11
D1
1052 - 8
GND
1052 - 5
3040
120k
3041
120k
3042
56k
2040
180pF
2041
180pF
2042
330pF
2006
1n5
2007
560p
3000
10k
3001
10k
3002
10k
3003
10k
3004
10k
3005
10k
2002
220p
2001
220p
2000
220p
2003
220p
2004
220p
2005
220p
CHECK OF PHOTODIODES
WITH IR LED OF REMOTE CONTROL
+5V LASER
1052 - 6
5V PLAYMODE
0V STOP
3022
4R7
2025
22uF/40V
7061 A
TCA0372
3021
10k
3020
1k
CONN. 1052 TO CDM VIA FLEXFOIL
2011
22uF/40V
3006
1k
UREF
3007
1k
2009
22nF
2008
22uF/40V
5010
2u2H
2010
22nF
2012
22nF
2013
22uF/40V
2014
47nF
3010
1M
1000
8,46MHz
3011
10k
7000
TDA1301
A/D
PREPROCESSING
CONTROL FUNCTION
XTAL OSCILLATOR
DIVIDER
OUTPUT STAGES
VREF GENERATOR
CONTROL PART
MPROC INTERFACE
VddA
Vdd1
Vdd2
XTLO
XTLI
XTLR
CLO
CL
FO
RA
SL
VRL
VssA
VssD
VRH
LDON
OTD
TS2
TS1
NRST
SIDA
SICL
SILD
3015
330R
3014
10k
3013
1k
3012
330R
OTD
TO IC 7100
ON DECODER
CIRCUIT
NRST
SIDA
SICL
SILD
TO IC 7700
ON DECODER
CIRCUIT
3079
15k
3078
15k
2076
180p
2074
100nF
7060 B
TCA0372
3077
6k8
3076
4k7
2075
3n9
3075
10k
2072
100n
2071
100nF
3074
22R
1052 - 3
FOC+
1052 - 2
FOC-
3073
15k
3070
15k
2069
180p
7060 A
TCA0372
3072
10k
3071
6k8
2068
2n7
3069
10k
2067
100n
3068
22R
1052 - 1
RAD+
1052 - 4
RAD-
3067
15k
3066
15k
2066
2n2
2064
100nF
7061 B
TCA0372
3065
7k5
3064
6k8
2063
33n
3060
10k
2062
100n
2060
100nF
3062
22R
1070 - 6
SL OUT
1070 - 5
GND
CONN. 1070 TO SLEDGE MOTOR
+10
-10
+5
17
18
19
20
21
22
23
65
67
D1
D2
D3
D4
D5
3073_0264_a_R
3073_0264_a_B

1000	E10
1052	H17
1052	F17
1052	F17
1052	I17
1052	I 1
1052	K 1
1052	B 1
1052	I 1
1052	G 1
1052	G 1
1052	I 1
1052	H 1
1070	L17
1070	L17
2000	H 6
2001	G 6
2002	G 6
2003	H 6
2004	I 6
2005	I 6
2006	I 4
2007	I 4
2008	E12
2009	E12
2010	E 9
2011	D10
2012	F 8
2013	F 8
2014	F10
2025	K 2
2040	G 4
2041	G 4
2042	H 4
2043	F 2
2044	F 3
2045	F 3
2046	F 4
2047	E 5
2048	C 6
2049	C 6
2050	D 3
2051	B 2
2052	B 2
2060	M16
2062	L16
2063	L14
2064	K15
2066	J15
2067	I16
2068	I14
2069	H15
2071	F16
2072	F16
2074	E15
2075	F14
2076	D15
3000	G 5
3001	G 5
3002	G 5
3003	H 5
3004	H 5
3005	I 5
3006	E10
3007	E11
3010	E10
3011	F11
3012	J10
3013	J10
3014	J 9
3015	J 9
3020	K 5
3021	K 5
3022	K 2
3040	G 4
3041	G 4
3042	H 4
3043	E 2
3044	E 4
3045	D 5
3046	D 6
3047	D 8
3048	C 8
3049	B 7
3050	C 6
3051	C 5
3052	D 5
3053	D 3
3054	D 3
3055	B 5
3056	B 4
3057	B 3
3058	B 2
3059	E 3
3060	M15
3062	M17
3064	L14
3065	L14
3066	J15
3067	J14
3068	I17
3069	I15
3070	H15
3071	H14
3072	H14
3073	G14
3074	F17
3075	F14
3076	F14
3077	F14
3078	D15
3079	D14
5010	E10
7000	F12
7040	C 3
7041	C 4
7042	C 5
7043	C 7
7044	C 7
7060	H16
7060	E16
7061	K 4
7061	K16


17
65
2.5V
0,5us/DIV
eyepattern
18
20
0,5us/DIV
80mV
STOP MODE
ACTIVITY IN PLAY MODE
22
0,5us/DIV
20mV
STOP MODE
ACTIVITY IN PLAY MODE

19 ACTIVITY DURING PLAY

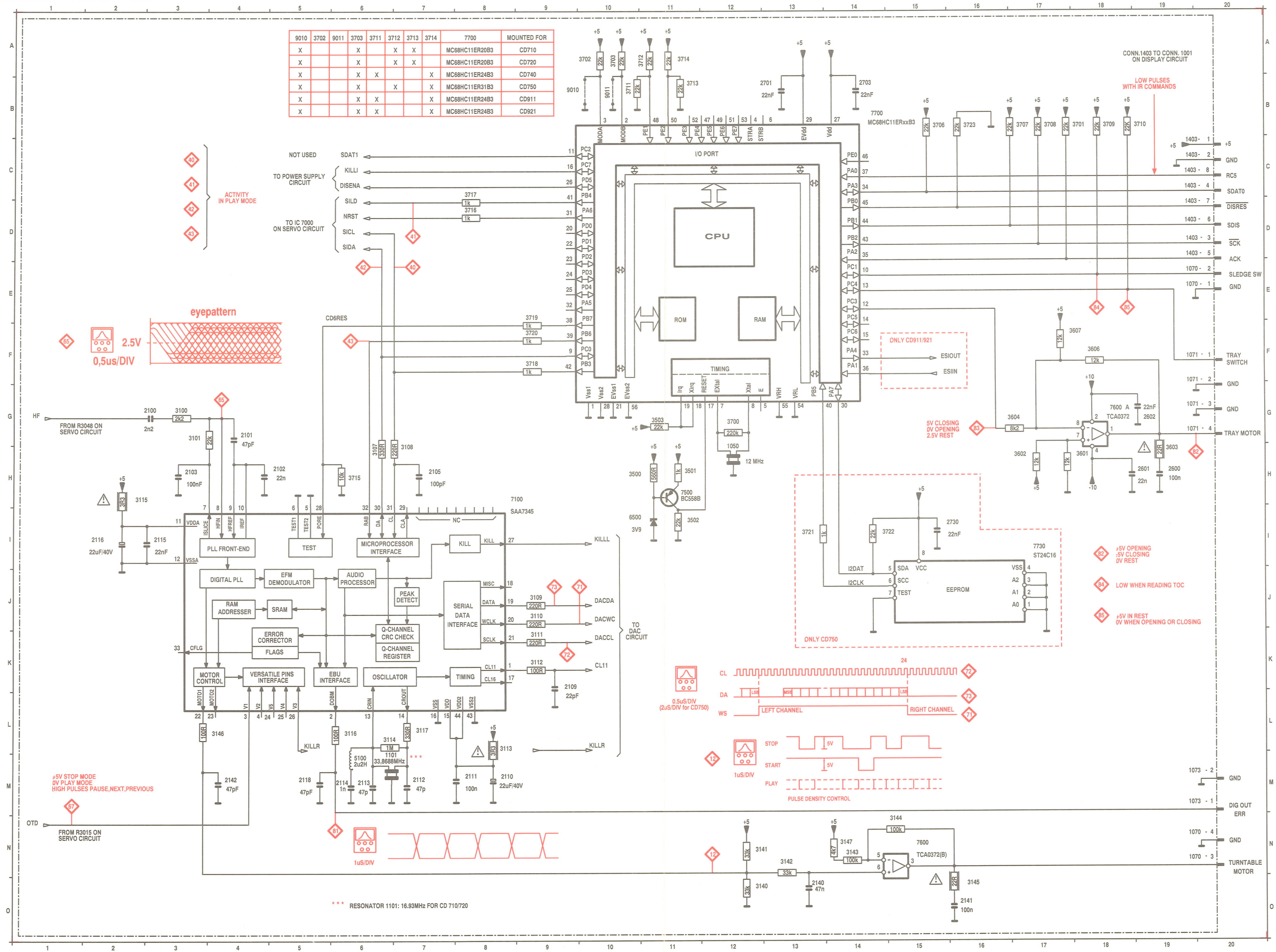
21 ACTIVITY DURING PLAY

23 SERVICE MODE 0
SL OUT: -3.5V
SL IN: +3.5V

67 +5V STOP MODE
0V PLAY MODE
HIGH PULSES PAUSE,NEXT,PREVIOUS

DECODER CIRCUIT DIAGRAM

9010	3702	9011	3703	3711	3712	3713	3714	7700	MOUNTED FOR
X			X		X	X		MC68HC11ER20B3	CD710
X			X		X	X		MC68HC11ER20B3	CD720
X			X	X			X	MC68HC11ER24B3	CD740
X			X		X		X	MC68HC11ER31B3	CD750
X			X	X			X	MC68HC11ER24B3	CD911
X			X	X			X	MC68HC11ER24B3	CD921

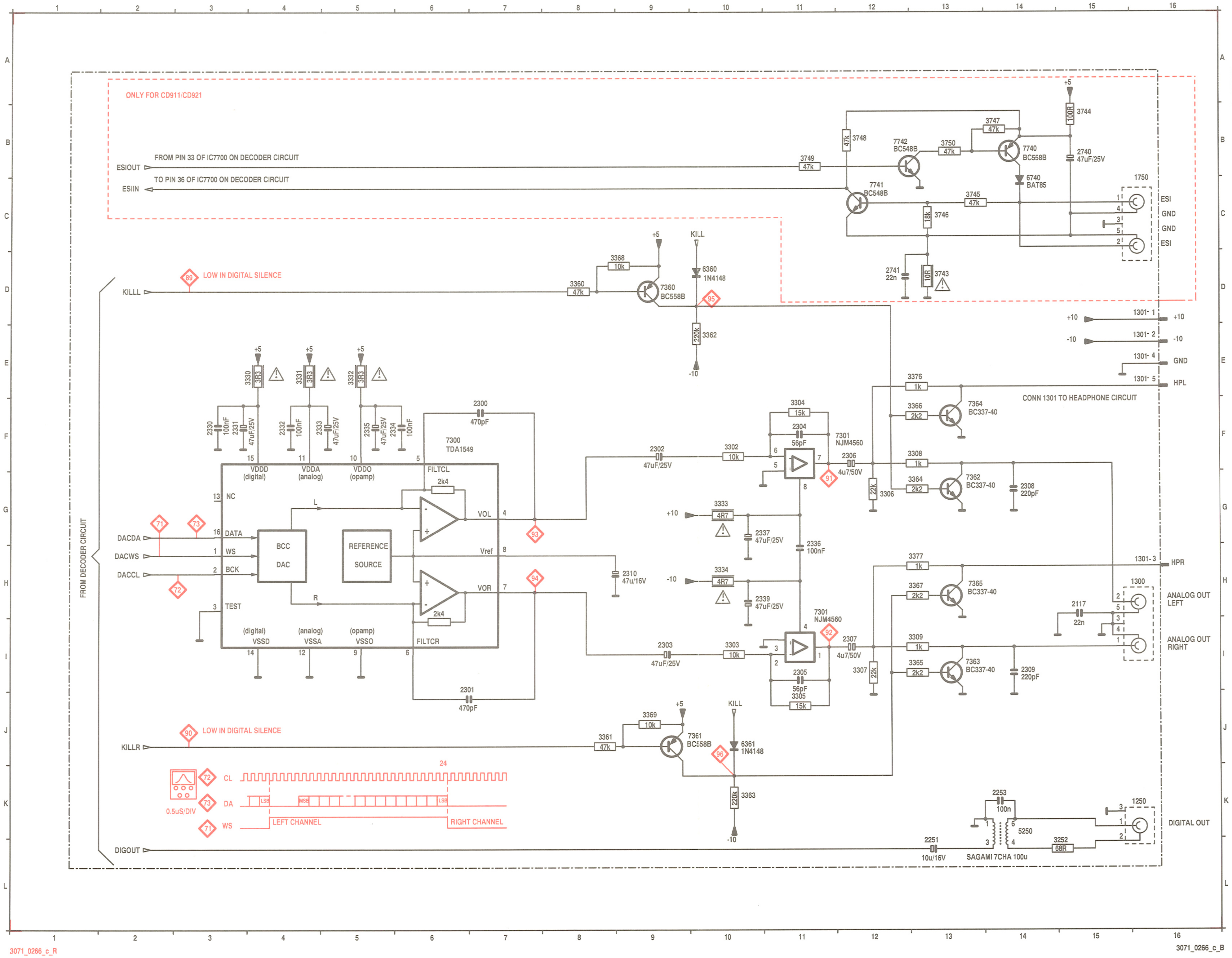


NOT USED
SDAT1
TO POWER SUPPLY CIRCUIT
KILLI
DISENA
TO IC 7000 ON SERVO CIRCUIT
SILD
NRST
SICL
SIDA
ACTIVITY IN PLAY MODE
eyepattern
2.5V
0,5us/DIV
CD6RES
HF
FROM R3048 ON SERVO CIRCUIT
7700
MC68HC11ERxxB3
I/O PORT
CPU
ROM
RAM
TIMING
CONN.1403 TO CONN. 1001 ON DISPLAY CIRCUIT
LOW PULSES WITH IR COMMANDS
RC5
SDATO
DISRES
SDIS
SCK
ACK
SLEDGE SW
GND
TRAY SWITCH
TRAY MOTOR
ONLY CD911/921
ESIOUT
ESIIN
5V CLOSING
0V OPENING
2.5V REST
7600 A
TCA0372
7500
BC558B
12 MHz
ONLY CD750
7730
ST24C16
EEPROM
I2DAT
I2CLK
SDA
SCC
TEST
VCC
VSS
±5V OPENING
∓5V CLOSING
0V REST
LOW WHEN READING TOC
±5V IN REST
0V WHEN OPENING OR CLOSING
7100
SAA7345
PLL FRONT-END
TEST
MICROPROCESSOR INTERFACE
KILL
DIGITAL PLL
EFM DEMODULATOR
AUDIO PROCESSOR
RAM ADDRESSER
SRAM
PEAK DETECT
ERROR CORRECTOR
FLAGS
Q-CHANNEL CRC CHECK
Q-CHANNEL REGISTER
SERIAL DATA INTERFACE
MOTOR CONTROL
VERSATILE PINS INTERFACE
EBU INTERFACE
OSCILLATOR
TIMING
KILLL
DACDA
DACWC
DACCL
TO DAC CIRCUIT
CL11
KILLR
1101
33,8688MHz
0.5uS/DIV
(2uS/DIV for CD750)
CL
DA
WS
LSB
MSB
LEFT CHANNEL
RIGHT CHANNEL
STOP
START
PLAY
5V
1uS/DIV
PULSE DENSITY CONTROL
±5V STOP MODE
0V PLAY MODE
HIGH PULSES PAUSE,NEXT,PREVIOUS
OTD
FROM R3015 ON SERVO CIRCUIT
DIG OUT ERR
TURNTABLE MOTOR
7600
TCA0372(B)

*** RESONATOR 1101: 16.93MHz FOR CD 710/720

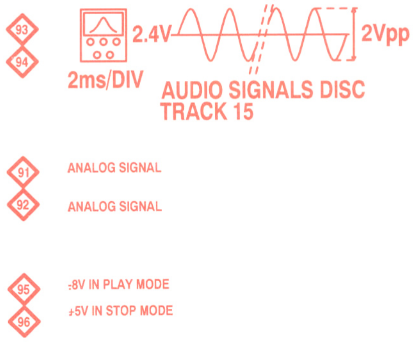
1050	H12
1070	E19
1070	E19
1070	N19
1070	N19
1071	F19
1071	F19
1071	G19
1071	G19
1073	M19
1073	M19
1101	M 6
1403	C19
1403	C19
1403	D19
1403	C19
1403	D19
1403	D19
1403	D19
1403	C19
2100	G 2
2101	G 4
2102	H 5
2103	H 3
2105	H 7
2109	K 9
2110	M 8
2111	M 8
2112	M 7
2113	M 6
2114	M 6
2115	I 3
2116	I 2
2118	M 5
2140	O13
2141	O16
2142	M 4
2600	H19
2601	H19
2602	G19
2701	B13
2703	B14
2730	I16
3100	G 3
3101	G 3
3107	H 6
3108	H 7
3109	J 9
3110	J 9
3111	K 9
3112	K 9
3113	L 8
3114	L 6
3115	H 2
3116	L 6
3117	L 7
3140	O12
3141	N12
3142	N13
3143	N14
3144	N15
3145	O16
3146	L 4
3147	N14
3500	H10
3501	H11
3502	I11
3503	G11
3601	H18
3602	H17
3603	H19
3604	G16
3606	F18
3607	F17
3700	G12
3701	B18
3702	A10
3703	A10
3706	B15
3707	B17
3708	B17
3709	B18
3710	B19
3711	B10
3712	A11
3713	B11
3714	A11
3715	H 6
3716	D 8
3717	C 8
3718	F 9
3719	E 9
3720	F 9
3721	I13
3722	I15
3723	B16
5100	M 6
6500	I10
7100	H 8
7500	H11
7600	G18
7600	N15
7700	B14
7730	I17
9010	B 9
9011	B10

DAC CIRCUIT DIAGRAM



ONLY FOR CD911/CD921
FROM PIN 33 OF IC7700 ON DECODER CIRCUIT
ESIOUT
TO PIN 36 OF IC7700 ON DECODER CIRCUIT
ESIIN
3749 47k
3748 47k
7742 BC548B
3750 47k
3747 47k
7740 BC558B
+5
3744 100R
2740 47uF/25V
6740 BAT85
7741 BC548B
3745 47k
3746 18k
1750
ESI
GND
GND
ESI
2741 22n
3743 10R
KILLL
LOW IN DIGITAL SILENCE
89
3360 47k
3368 10k
7360 BC558B
KILL
6360 1N4148
95
3362 220k
-10
+10
-10
1301-1
1301-2
1301-4
1301-5
GND
HPL
CONN 1301 TO HEADPHONE CIRCUIT
3376 1k
3366 2k2
7364 BC337-40
3330 3R3
3331 3R3
3332 3R3
2330 100nF
2331 47uF/25V
2332 100nF
2333 47uF/25V
2335 47uF/25V
2334 100nF
2300 470pF
7300 TDA1549
VDDD (digital)
VDDA (analog)
VDDO (opamp)
FILTCL
2k4
NC
L
VOL
DATA
WS
BCK
TEST
BCC DAC
REFERENCE SOURCE
Vref
R
VOR
2k4
(digital) VSSD
(analog) VSSA
(opamp) VSSO
FILTCR
FROM DECODER CIRCUIT
DACDA
DACWS
DACCL
71
73
72
93
94
2310 47u/16V
2302 47uF/25V
3302 10k
3304 15k
2304 56pF
7301 NJM4560
2306 4u7/50V
91
3308 1k
3364 2k2
7362 BC337-40
2308 220pF
3306 22k
3333 4R7
2337 47uF/25V
2336 100nF
3334 4R7
2339 47uF/25V
7301 NJM4560
3377 1k
1301-3
HPR
3367 2k2
7365 BC337-40
1300
ANALOG OUT LEFT
2117 22n
ANALOG OUT RIGHT
2303 47uF/25V
3303 10k
92
2307 4u7/50V
3309 1k
3365 2k2
7363 BC337-40
2309 220pF
3307 22k
2305 56pF
3305 15k
2301 470pF
KILLR
LOW IN DIGITAL SILENCE
90
3369 10k
3361 47k
7361 BC558B
96
6361 1N4148
3363 220k
0.5uS/DIV
CL
24
DA
LSB
MSB
LSB
WS
LEFT CHANNEL
RIGHT CHANNEL
2253 100n
1250
DIGITAL OUT
5250
SAGAMI 7CHA 100u
2251 10u/16V
3252 68R
DIGOUT
3071_0266_c_R
3071_0266_c_B

1250	K15
1300	H15
1301	D16
1301	E16
1301	H16
1301	E16
1301	E16
1750	C16
2117	H15
2251	L13
2253	K14
2300	F 7
2301	I 6
2302	F 9
2303	I 9
2304	F11
2305	I11
2306	F12
2307	I12
2308	G14
2309	I14
2310	H 9
2330	F 3
2331	F 3
2332	F 4
2333	F 5
2334	F 6
2335	F 5
2336	H11
2337	G10
2339	H10
2740	B15
2741	D12
3252	L15
3302	F10
3303	I10
3304	F11
3305	J11
3306	G12
3307	I12
3308	F13
3309	I13
3330	E 4
3331	E 4
3332	E 5
3333	G10
3334	H10
3360	D 8
3361	J 8
3362	E10
3363	K10
3364	G13
3365	I13
3366	F13
3367	H13
3368	D 9
3369	J 9
3376	E13
3377	H13
3743	D13
3744	B15
3745	C13
3746	C13
3747	B14
3748	B12
3749	B11
3750	B13
5250	K14
6360	D10
6361	J10
6740	C14
7300	F 6
7301	H11
7301	F11
7360	D 9
7361	J 9
7362	G13
7363	I13
7364	F13
7365	H13
7740	B14
7741	C12
7742	B12

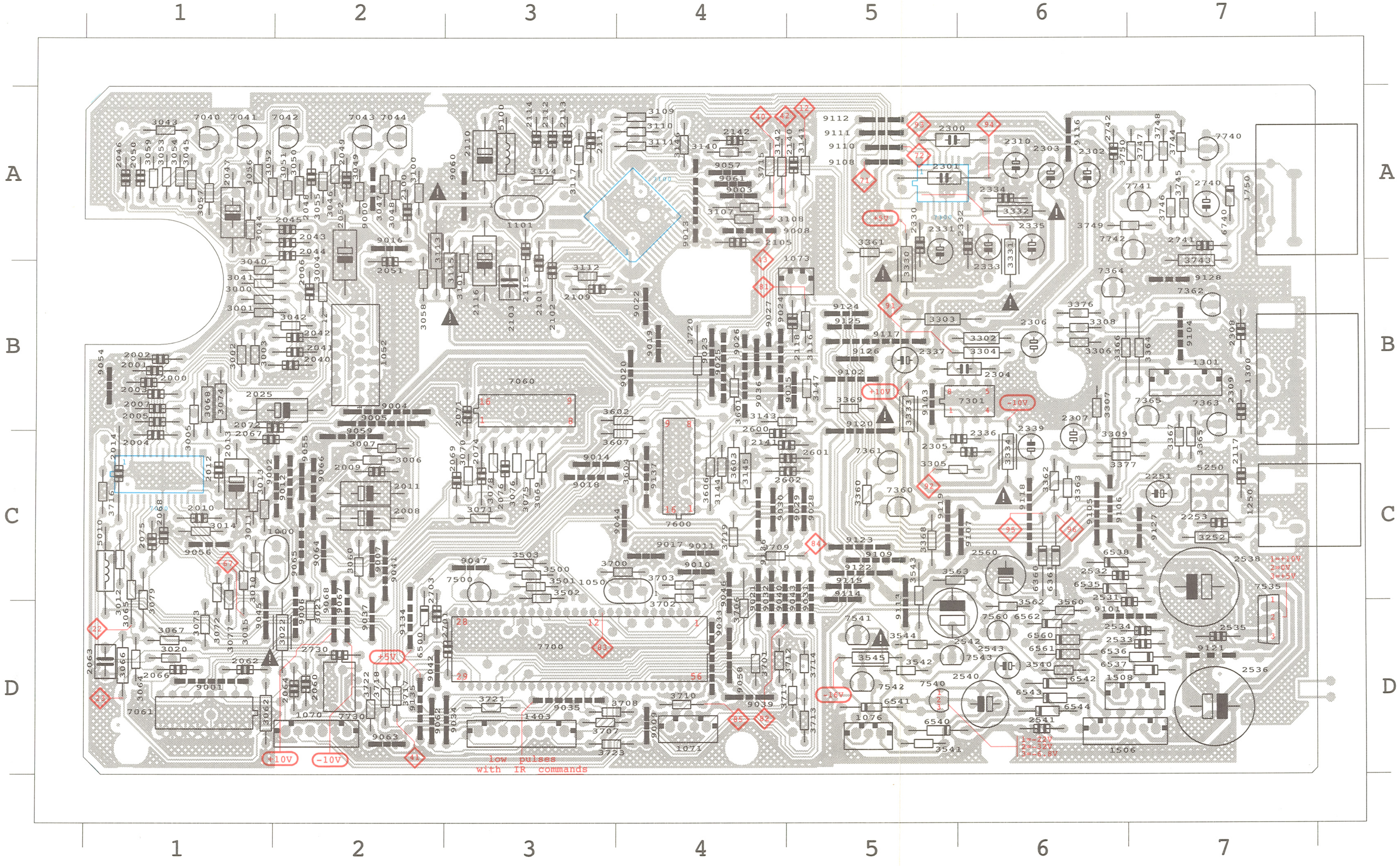


93
94
2.4V
2Vpp
2ms/DIV
AUDIO SIGNALS DISC TRACK 15
91
ANALOG SIGNAL
92
ANALOG SIGNAL
95
:8V IN PLAY MODE
96
+5V IN STOP MODE

MAIN PANEL COMPONENT SIDE

1076 D 5
1250 C 7
1300 B 7
1301 B 7
1506 D 6
1508 D 7
1750 A 7
2117 C 7
2251 C 7
2253 C 7
2300 A 5
2301 A 5
2302 A 6
2303 A 6
2304 B 6
2305 C 6
2306 B 6
2307 C 6
2308 B 7
2309 B 7
2310 A 6
2330 A 5
2331 A 5
2332 A 6
2333 A 6
2334 A 6
2335 A 6
2336 C 6
2337 B 5
2339 C 6
2531 D 7
2532 C 6
2533 D 7
2534 D 7
2535 D 7
2536 D 7
2538 C 7
2540 D 6
2541 D 6
2542 D 5
2543 D 6
2560 C 6
2740 A 7
2741 A 7
2742 A 6
3252 C 7
3302 B 6
3303 B 5
3304 B 6
3305 C 6
3306 B 6
3307 B 6
3308 B 6
3309 C 6
3330 B 5
3331 A 6
3332 A 6
3333 B 5
3334 C 6
3360 C 5
3361 A 5
3362 C 6
3363 C 6
3364 B 7
3365 C 7
3366 B 6
3367 C 7
3368 C 5
3369 B 5
3376 B 6
3377 C 6
3540 D 6
3541 D 5
3542 D 5
3543 C 5
3544 D 5
3545 D 5
3560 D 6
3562 D 6
3563 C 5
3743 B 7
3744 A 7
3745 A 7
3746 A 7
3747 A 7
3748 A 7
3749 A 7
3750 A 7
5250 C 7
6360 C 6
6361 C 6
6535 C 6
6536 D 7
6537 D 7
6538 C 6
6540 D 5
6541 D 5
6542 D 6
6543 D 6
6544 D 6
6560 D 6
6561 D 6
6562 D 6
6740 A 7
7300 A 5
7301 B 6
7360 C 5
7361 C 5
7362 B 7
7363 B 7
7364 B 6
7365 B 7
7535 D 7
7540 D 5
7541 D 5
7542 D 5
7543 D 5
7560 D 6
7740 A 7
7741 A 7
7742 A 7
9101 D 7
9102 B 5
9103 B 5
9104 B 7
9105 C 6
9106 C 6
9107 C 6
9108 A 5
9109 C 5
9110 A 5
9111 A 5
9112 A 5
9113 D 5
9114 C 5
9115 C 5
9116 A 6
9117 B 5
9118 C 6
9119 C 5
9120 C 5
9121 D 7
9122 C 5
9123 C 5
9124 B 5
9125 B 5
9126 B 5
9127 C 7
9128 B 7

1000 C 2
1050 C 4
1052 B 2
1070 D 2
1071 D 4
1073 B 5
1101 A 3
1403 D 3
2000 B 1
2001 B 1
2002 B 1
2003 B 1
2004 C 1
2005 B 1
2006 B 2
2007 B 1
2008 C 2
2009 C 2
2010 C 1
2011 C 2
2012 C 1
2013 C 1
2014 C 1
2025 B 2
2040 B 2
2041 B 2
2042 B 2
2043 A 2
2044 A 2
2045 A 2
2046 A 1
2047 A 1
2048 A 2
2049 A 2
2050 A 1
2051 B 2
2052 A 2
2060 D 2
2062 D 1
2063 D 1
2064 D 2
2066 D 1
2067 C 1
2068 C 1
2069 C 3
2071 B 3
2072 B 2
2074 C 3
2075 C 1
2076 C 3
2100 A 2
2101 B 3
2102 B 3
2103 B 3
2105 A 4
2109 B 3
2110 A 3
2111 A 3
2112 A 3
2113 A 3
2114 A 3
2115 A 3
2116 B 3
2118 B 5
2140 A 5
2141 C 5
2142 A 4
2600 C 4
2601 C 5
2602 C 5
2701 D 3
2703 D 2
2730 D 2
3000 B 1
3001 B 1
3002 B 1
3003 B 1
3004 B 2
3005 B 1
3006 C 2
3007 C 2
3010 C 1
3011 C 1
3012 C 1
3013 C 1
3014 C 1
3015 C 1
3020 D 1
3021 D 2
3022 D 2
3040 B 1
3041 B 1
3042 B 2
3043 A 1
3044 A 1
3045 A 1
3046 A 2
3047 A 2
3048 A 2
3049 A 2
3050 A 2
3051 A 2
3052 A 1
3053 A 1
3054 A 1
3055 A 2
3056 A 1
3057 A 1
3058 B 2
3059 A 1
3060 C 2
3062 D 1
3064 D 1
3065 C 1
3066 D 1
3067 D 1
3068 B 1
3069 C 3
3070 C 3
3071 C 3
3072 C 1
3073 D 1
3074 B 1
3075 C 3
3076 C 3
3077 C 1
3078 C 3
3079 C 1
3100 A 2
3101 B 3
3107 A 4
3108 A 4
3109 A 4
3110 A 4
3111 A 4
3112 B 3
3113 A 2
3114 A 3
3115 B 3
3116 B 5
3117 A 3
3140 A 4
3141 A 5
3142 A 4
3143 B 5
3144 C 4
3145 C 4
3146 A 4
3147 B 5
3500 C 3
3501 C 3
3502 C 3
3503 C 3
3601 B 4
3602 B 4
3603 C 4
3604 C 4
3606 C 4
3607 C 4
3700 C 4
3701 D 4
3702 C 4
3703 C 4
3706 D 4
3707 D 3
3708 D 3
3709 C 4
3710 D 4
3711 D 5
3712 D 4
3713 D 5
3714 D 5
3715 A 4
3716 C 1
3717 D 2
3718 D 2
3719 C 4
3720 B 4
3721 D 3
3722 D 2
3723 D 3
5010 C 1
5100 A 3
6500 D 2
7000 C 1
7040 A 1
7041 A 1
7042 A 2
7043 A 2
7044 A 2
7060 B 3
7061 D 1
7100 A 4
7500 C 3
7600 C 4
7700 D 3
7730 D 2
9000 A 2
9001 D 1
9002 C 2
9003 A 4
9004 B 2
9005 B 2
9006 D 2
9007 C 2
9008 A 4
9009 D 4
9010 C 4
9011 C 4
9012 C 2
9013 A 4
9014 C 3
9015 B 5
9016 A 2
9017 C 4
9018 C 3
9019 B 4
9020 B 4
9021 C 4
9022 B 4
9023 B 4
9024 B 4
9025 B 4
9026 B 4
9027 B 4
9028 C 5
9029 C 5
9030 C 4
9031 C 5
9032 C 4
9033 D 4
9034 D 3
9035 D 3
9036 B 4
9037 D 2
9039 D 4
9040 C 4
9041 C 2
9042 D 2
9043 C 5
9044 C 4
9045 D 1
9046 C 4
9047 C 3
9054 B 1
9055 C 2
9056 C 1
9057 A 4
9058 D 4
9059 C 2
9060 A 3
9061 A 4
9062 D 2
9063 D 2
9064 C 2
9065 C 2
9066 C 2
9067 D 2
9068 D 2
9134 D 2
9135 D 2
9136 C 4
9137 C 4



MAIN PANEL SOLDER SIDE

9056 C 1
9057 A 4
9058 D 4
9059 C 2
9060 A 3
9061 A 4
9062 D 2
9063 D 2
9064 C 2
9065 C 2
9066 C 2
9067 D 2
9068 D 2
9134 D 2
9135 D 2
9136 C 4
9137 C 4

9031 C 5
9032 C 4
9033 D 4
9034 D 3
9035 D 3
9036 B 4
9037 D 2
9039 D 4
9040 C 4
9041 C 2
9042 D 2
9043 C 5
9044 C 4
9045 D 1
9046 C 4
9047 C 3
9054 B 1
9055 C 2

9013 A 4
9014 C 3
9015 B 5
9016 A 2
9017 C 4
9018 C 3
9019 B 4
9020 B 4
9021 C 4
9022 B 4
9023 B 4
9024 B 4
9025 B 4
9026 B 4
9027 B 4
9028 C 5
9029 C 5
9030 C 4

7100 A 4
7500 C 3
7600 C 4
7700 D 3
7730 D 2
9000 A 2
9001 D 1
9002 C 2
9003 A 4
9004 B 2
9005 B 2
9006 D 2
9007 C 2
9008 A 4
9009 D 4
9010 C 4
9011 C 4
9012 C 2

3717 D 2
3718 D 2
3719 C 4
3720 B 4
3721 D 3
3722 D 2
3723 D 3
5010 C 1
5100 A 3
6500 D 2
7000 C 1
7040 A 1
7041 A 1
7042 A 2
7043 A 2
7044 A 2
7060 B 3
7061 D 1

3604 C 4
3606 C 4
3607 C 4
3700 C 4
3701 D 4
3702 C 4
3703 C 4
3706 D 4
3707 D 3
3708 D 3
3709 C 4
3710 D 4
3711 D 5
3712 D 4
3713 D 5
3714 D 5
3715 A 4
3716 C 1

3115 B 3
3116 B 5
3117 A 3
3140 A 4
3141 A 5
3142 A 4
3143 B 5
3144 C 4
3145 C 4
3146 A 4
3147 B 5
3500 C 3
3501 C 3
3502 C 3
3503 C 3
3601 B 4
3602 B 4
3603 C 4

3072 C 1
3073 D 1
3074 B 1
3075 C 3
3076 C 3
3077 C 1
3078 C 3
3079 C 1
3100 A 2
3101 B 3
3107 A 4
3108 A 4
3109 A 4
3110 A 4
3111 A 4
3112 B 3
3113 A 2
3114 A 3

3052 A 1
3053 A 1
3054 A 1
3055 A 2
3056 A 1
3057 A 1
3058 B 2
3059 A 1
3060 C 2
3062 D 1
3064 D 1
3065 C 1
3066 D 1
3067 D 1
3068 B 1
3069 C 3
3070 C 3
3071 C 3

3013 C 1
3014 C 1
3015 C 1
3020 D 1
3021 D 2
3022 D 2
3040 B 1
3041 B 1
3042 B 2
3043 A 1
3044 A 1
3045 A 1
3046 A 2
3047 A 2
3048 A 2
3049 A 2
3050 A 2
3051 A 2

2142 A 4
2600 C 4
2601 C 5
2602 C 5
2701 D 3
2703 D 2
2730 D 2
3000 B 1
3001 B 1
3002 B 1
3003 B 1
3004 B 2
3005 B 1
3006 C 2
3007 C 2
3010 C 1
3011 C 1
3012 C 1

2075 C 1
2076 C 3
2100 A 2
2101 B 3
2102 B 3
2103 B 3
2105 A 4
2109 B 3
2110 A 3
2111 A 3
2112 A 3
2113 A 3
2114 A 3
2115 A 3
2116 B 3
2118 B 5
2140 A 5
2141 C 5

2046 A 1
2047 A 1
2048 A 2
2049 A 2
2050 A 1
2051 B 2
2052 A 2
2060 D 2
2062 D 1
2063 D 1
2064 D 2
2066 D 1
2067 C 1
2068 C 1
2069 C 3
2071 B 3
2072 B 2
2074 C 3

2004 C 1
2005 B 1
2006 B 2
2007 B 1
2008 C 2
2009 C 2
2010 C 1
2011 C 2
2012 C 1
2013 C 1
2014 C 1
2025 B 2
2040 B 2
2041 B 2
2042 B 2
2043 A 2
2044 A 2
2045 A 2

9124 B 5
9125 B 5
9126 B 5
9127 C 7
9128 B 7

1000 C 2
1050 C 4
1052 B 2
1070 D 2
1071 D 4
1073 B 5
1101 A 3
1403 D 3
2000 B 1
2001 B 1
2002 B 1
2003 B 1

9106 C 6
9107 C 6
9108 A 5
9109 C 5
9110 A 5
9111 A 5
9112 A 5
9113 D 5
9114 C 5
9115 C 5
9116 A 6
9117 B 5
9118 C 6
9119 C 5
9120 C 5
9121 D 7
9122 C 5
9123 C 5

7362 B 7
7363 B 7
7364 B 6
7365 B 7
7535 D 7
7540 D 5
7541 D 5
7542 D 5
7543 D 5
7560 D 6
7740 A 7
7741 A 7
7742 A 7
9101 D 7
9102 B 5
9103 B 5
9104 B 7
9105 C 6

6361 C 6
6535 C 6
6536 D 7
6537 D 7
6538 C 6
6540 D 5
6541 D 5
6542 D 6
6543 D 6
6544 D 6
6560 D 6
6561 D 6
6562 D 6
6740 A 7
7300 A 5
7301 B 6
7360 C 5
7361 C 5

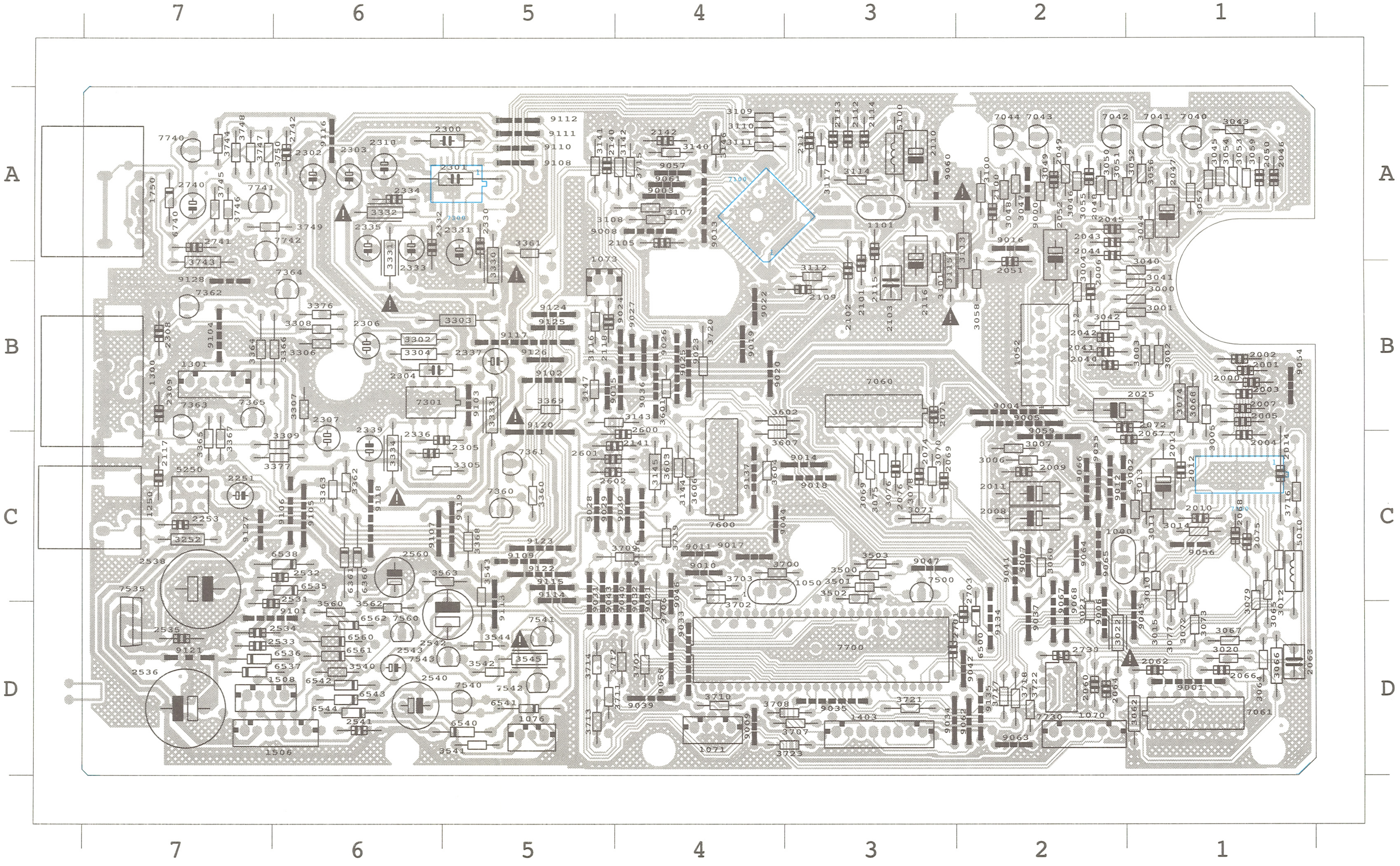
3541 D 5
3542 D 5
3543 C 5
3544 D 5
3545 D 5
3560 D 6
3562 D 6
3563 C 5
3743 B 7
3744 A 7
3745 A 7
3746 A 7
3747 A 7
3748 A 7
3749 A 7
3750 A 7
5250 C 7
6360 C 6

3330 B 5
3331 A 6
3332 A 6
3333 B 5
3334 C 6
3360 C 5
3361 A 5
3362 C 6
3363 C 6
3364 B 7
3365 C 7
3366 B 6
3367 C 7
3368 C 5
3369 B 5
3376 B 6
3377 C 6
3540 D 6

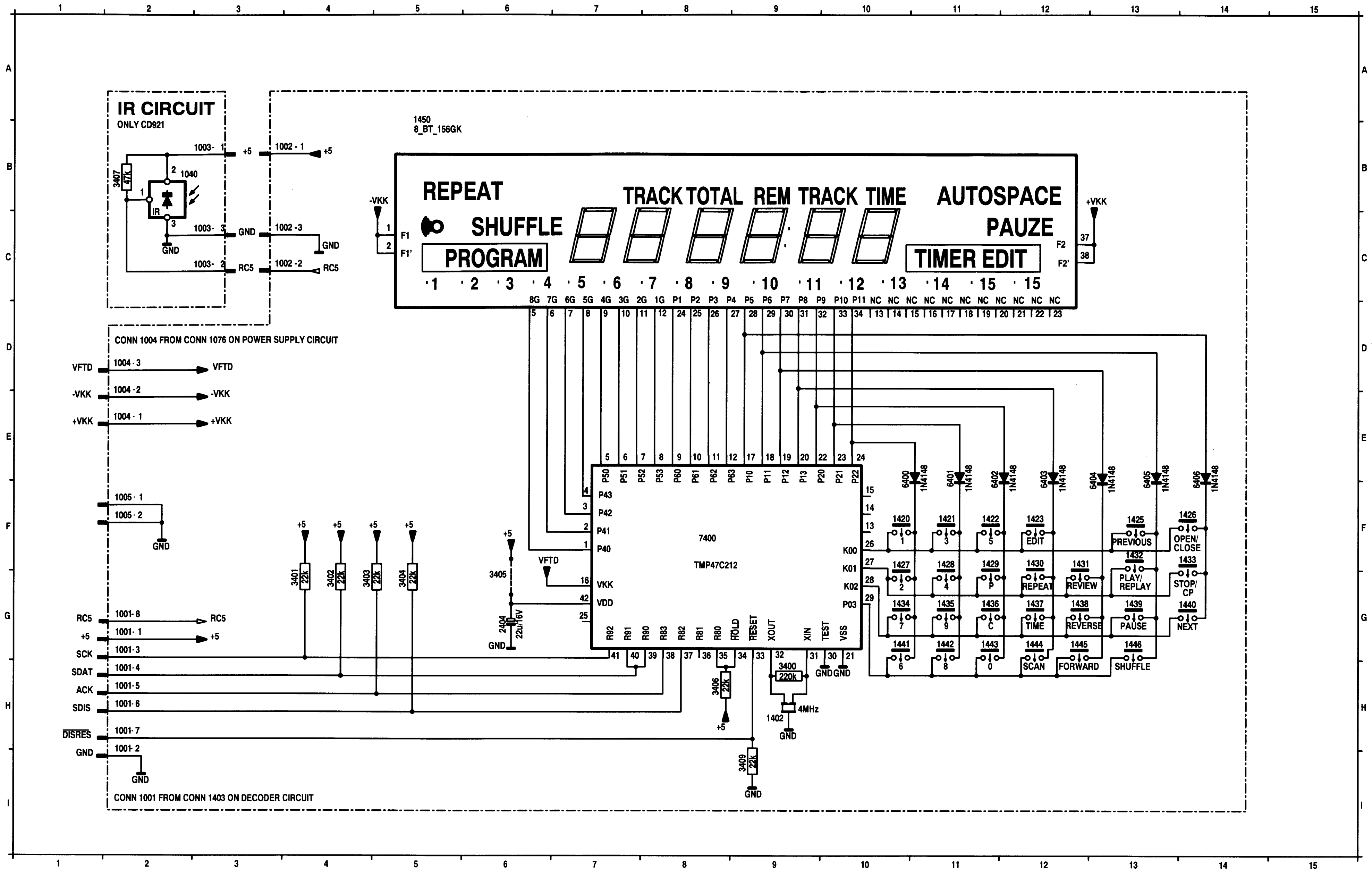
2538 C 7
2540 D 6
2541 D 6
2542 D 5
2543 D 6
2560 C 6
2740 A 7
2741 A 7
2742 A 6
3252 C 7
3302 B 6
3303 B 5
3304 B 6
3305 C 6
3306 B 6
3307 B 6
3308 B 6
3309 C 6

2308 B 7
2309 B 7
2310 A 6
2330 A 5
2331 A 5
2332 A 6
2333 A 6
2334 A 6
2335 A 6
2336 C 6
2337 B 5
2339 C 6
2531 D 7
2532 C 6
2533 D 7
2534 D 7
2535 D 7
2536 D 7

1076 D 5
1250 C 7
1300 B 7
1301 B 7
1506 D 6
1508 D 7
1750 A 7
2117 C 7
2251 C 7
2253 C 7
2300 A 5
2301 A 5
2302 A 6
2303 A 6
2304 B 6
2305 C 6
2306 B 6
2307 C 6

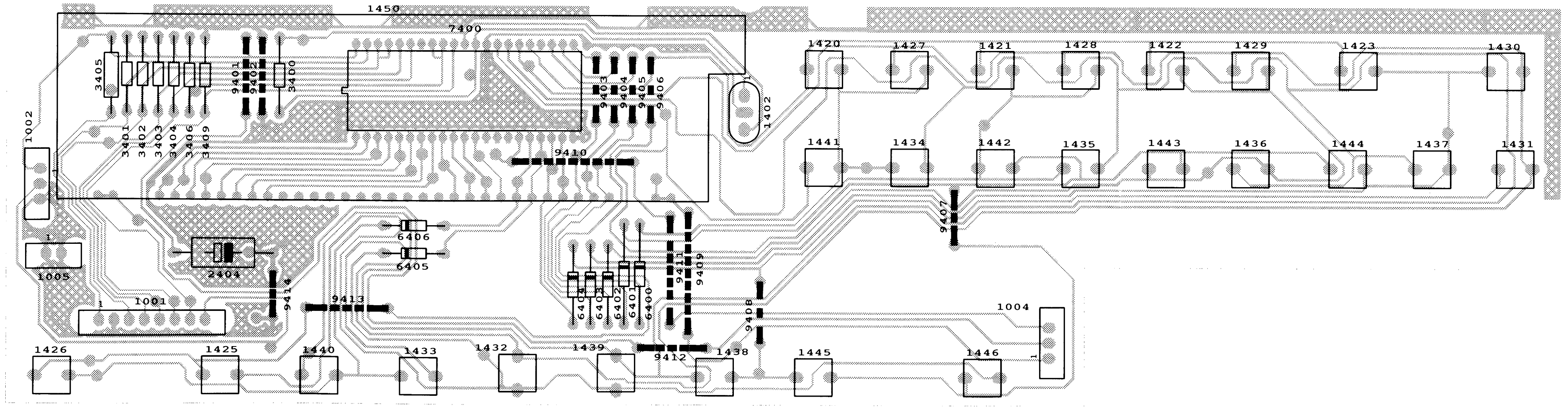


CONTROL & DISPLAY CIRCUIT DIAGRAM

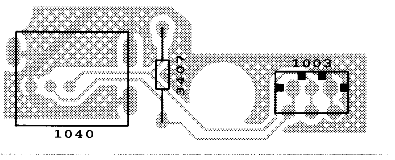

IR CIRCUIT
ONLY CD921
3407 47K
1040
IR
GND
1003- 1
1003- 3
1003- 2
+5
GND
RC5
1002 - 1
1002 -3
1002 -2
1450
8_BT_156GK
REPEAT
SHUFFLE
PROGRAM
TRACK TOTAL REM TRACK TIME
AUTOSPACE
PAUZE
TIMER EDIT
-VKK
+VKK
F1
F1'
F2
F2'
8G 7G 6G 5G 4G 3G 2G 1G P1 P2 P3 P4 P5 P6 P7 P8 P9 P10 P11 NC NC NC NC NC NC NC NC NC NC NC
CONN 1004 FROM CONN 1076 ON POWER SUPPLY CIRCUIT
VFTD
-VKK
+VKK
1004 - 3
1004 - 2
1004 - 1
1005 - 1
1005 - 2
GND
3401 22K
3402 22K
3403 22K
3404 22K
3405
2404 22u 16V
7400
TMP47C212
P50 P51 P52 P53 P60 P61 P62 P63 P10 P11 P12 P13 P20 P21 P22
P43
P42
P41
P40
VKK
VDD
K00
K01
K02
P03
R92 R91 R90 R83 R82 R81 R80 HOLD RESET XOUT XIN TEST VSS
3406 22k
3400 220k
1402
4MHz
3409 22k
6400 1N4148
6401 1N4148
6402 1N4148
6403 1N4148
6404 1N4148
6405 1N4148
6406 1N4148
1420 1
1421 3
1422 5
1423 EDIT
1425 PREVIOUS
1426 OPEN/ CLOSE
1427 2
1428 4
1429 P
1430 REPEAT
1431 REVIEW
1432 PLAY/ REPLAY
1433 STOP/ CP
1434 7
1435 9
1436 C
1437 TIME
1438 REVERSE
1439 PAUSE
1440 NEXT
1441 6
1442 8
1443 0
1444 SCAN
1445 FORWARD
1446 SHUFFLE
RC5
+5
SCK
SDAT
ACK
SDIS
DISRES
GND
1001- 8
1001- 1
1001- 3
1001- 4
1001- 5
1001- 6
1001- 7
1001- 2
CONN 1001 FROM CONN 1403 ON DECODER CIRCUIT
3072_0276_D

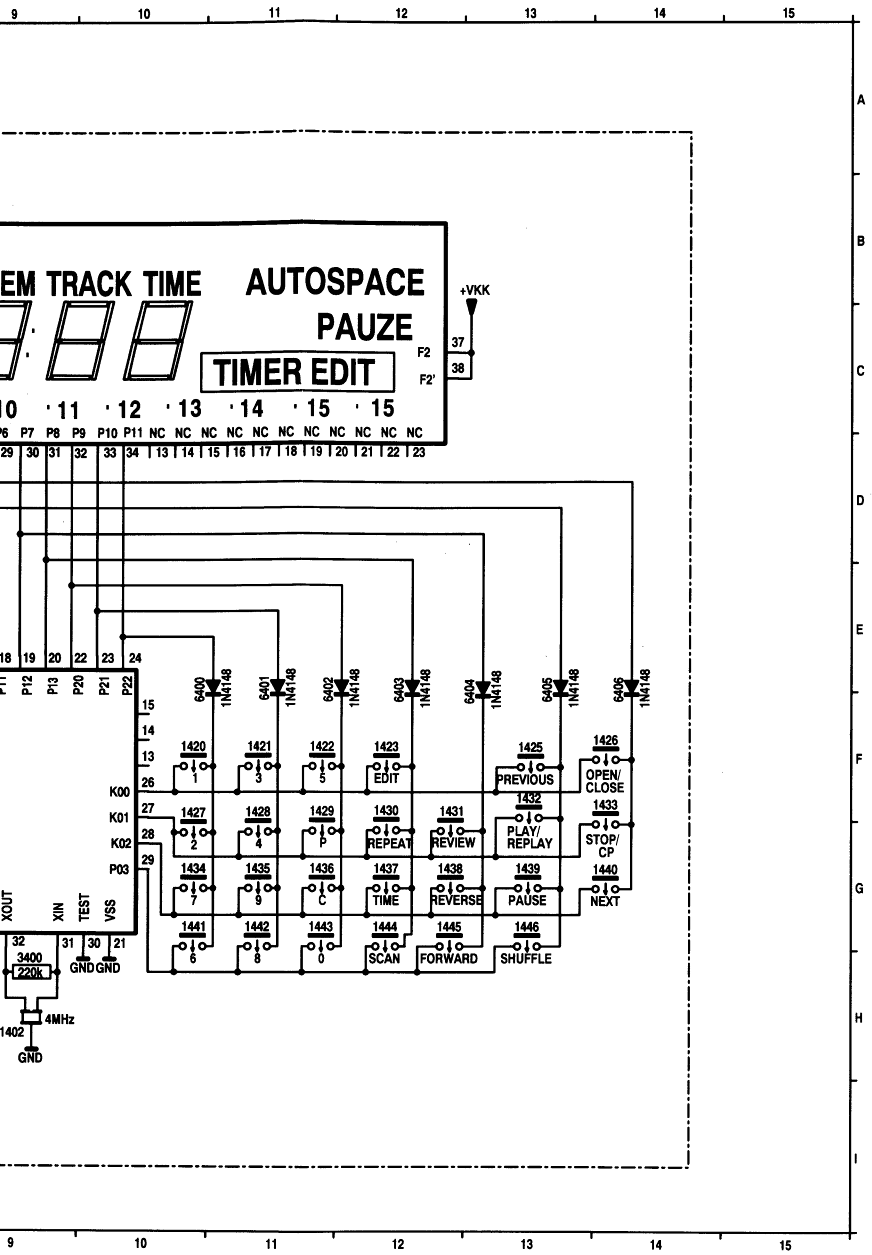
1001	G 2
1001	I 2
1001	G 2
1001	H 2
1001	H 2
1001	H 2
1001	H 2
1001	G 2
1002	B 4
1002	C 4
1002	C 4
1003	B 2
1003	C 2
1003	C 2
1004	E 2
1004	E 2
1004	D 2
1005	F 2
1005	F 2
1040	B 2
1402	H 9
1420	F10
1421	F11
1422	F11
1423	F12
1425	F13
1426	F14
1427	F10
1428	F11
1429	F11
1430	F12
1431	F12
1432	F13
1433	F14
1434	G10
1435	G11
1436	G11
1437	G12
1438	G12
1439	G13
1440	G14
1441	G10
1442	G11
1443	G11
1444	G12
1445	G12
1446	G13
1450	B 5
2404	G 6
3400	H 9
3401	G 4
3402	G 4
3403	G 4
3404	G 5
3405	G 6
3406	H 8
3407	B 2
3409	I 9
6400	E10
6401	E11
6402	E11
6403	E12
6404	E13
6405	E13
6406	E14
7400	F 8

CONTROL & DISPLAY PANEL

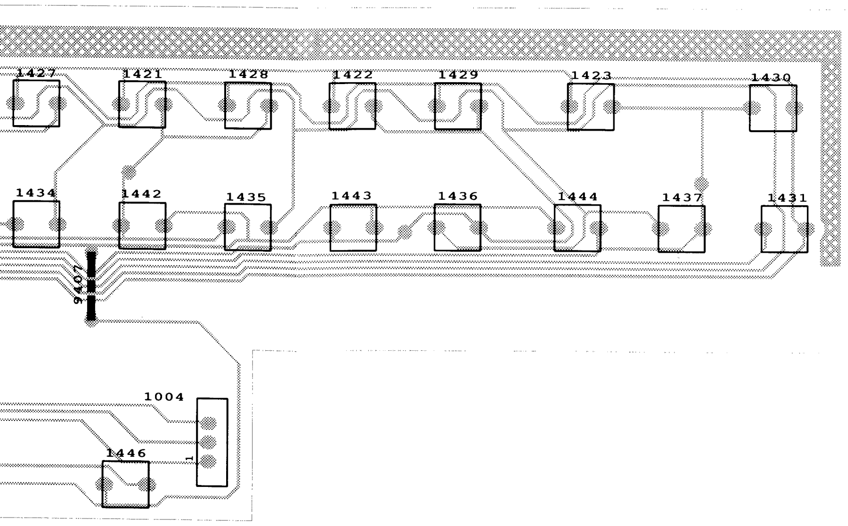

1450
7400
3405
3401
3402
3403
3404
3406
3409
9401
9402
3400
9403
9404
9405
9406
1402
1002
9410
1420
1427
1421
1428
1422
1429
1423
1430
1441
1434
1442
1435
1443
1436
1444
1437
1431
9407
6406
6405
2404
1005
1001
9414
9413
6403
6404
6402
6401
6400
9411
9409
9408
1004
1426
1425
1440
1433
1432
1439
9412
1438
1445
1446

IR PANEL

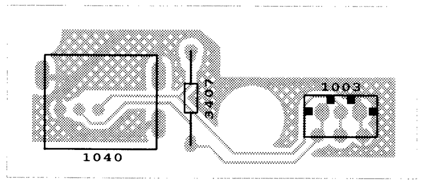

1003
3407
1040


EM TRACK TIME
AUTOSPACE
PAUZE
TIMER EDIT
+VKK
F2
F2'
1420
1421
1422
1423
EDIT
1425
PREVIOUS
1426
OPEN/
CLOSE
1427
1428
1429
P
1430
REPEAT
1431
REVIEW
1432
PLAY/
REPLAY
1433
STOP/
CP
1434
1435
1436
C
1437
TIME
1438
REVERSE
1439
PAUSE
1440
NEXT
1441
1442
1443
1444
SCAN
1445
FORWARD
1446
SHUFFLE
K00
K01
K02
P03
XOUT
XIN
TEST
VSS
3400
220k
4MHz
1402
GND
6400
6401
6402
6403
6404
6405
6406
1N4148
3072_0276_D

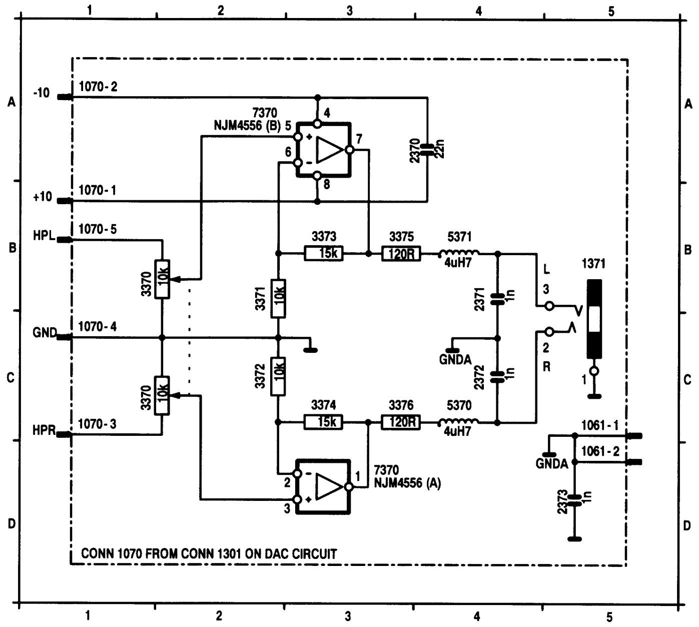
1001	G 2
1001	I 2
1001	G 2
1001	H 2
1001	H 2
1001	H 2
1001	H 2
1001	G 2
1002	B 4
1002	C 4
1002	C 4
1003	B 2
1003	C 2
1003	C 2
1004	E 2
1004	E 2
1004	D 2
1005	F 2
1005	F 2
1040	B 2
1402	H 9
1420	F10
1421	F11
1422	F11
1423	F12
1425	F13
1426	F14
1427	F10
1428	F11
1429	F11
1430	F12
1431	F12
1432	F13
1433	F14
1434	G10
1435	G11
1436	G11
1437	G12
1438	G12
1439	G13
1440	G14
1441	G10
1442	G11
1443	G11
1444	G12
1445	G12
1446	G13
1450	B 5
2404	G 6
3400	H 9
3401	G 4
3402	G 4
3403	G 4
3404	G 5
3405	G 6
3406	H 8
3407	B 2
3409	I 9
6400	E10
6401	E11
6402	E11
6403	E12
6404	E13
6405	E13
6406	E14
7400	F 8


1427
1421
1428
1422
1429
1423
1430
1434
1442
1435
1443
1436
1444
1437
1431
1004
1446

IR PANEL

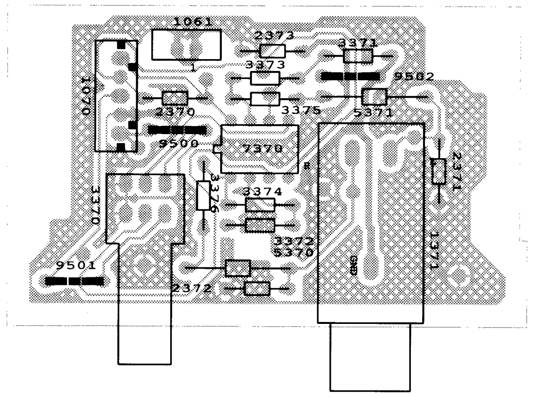

1040
3407
1003

HEADPHONE CIRCUIT DIAGRAM

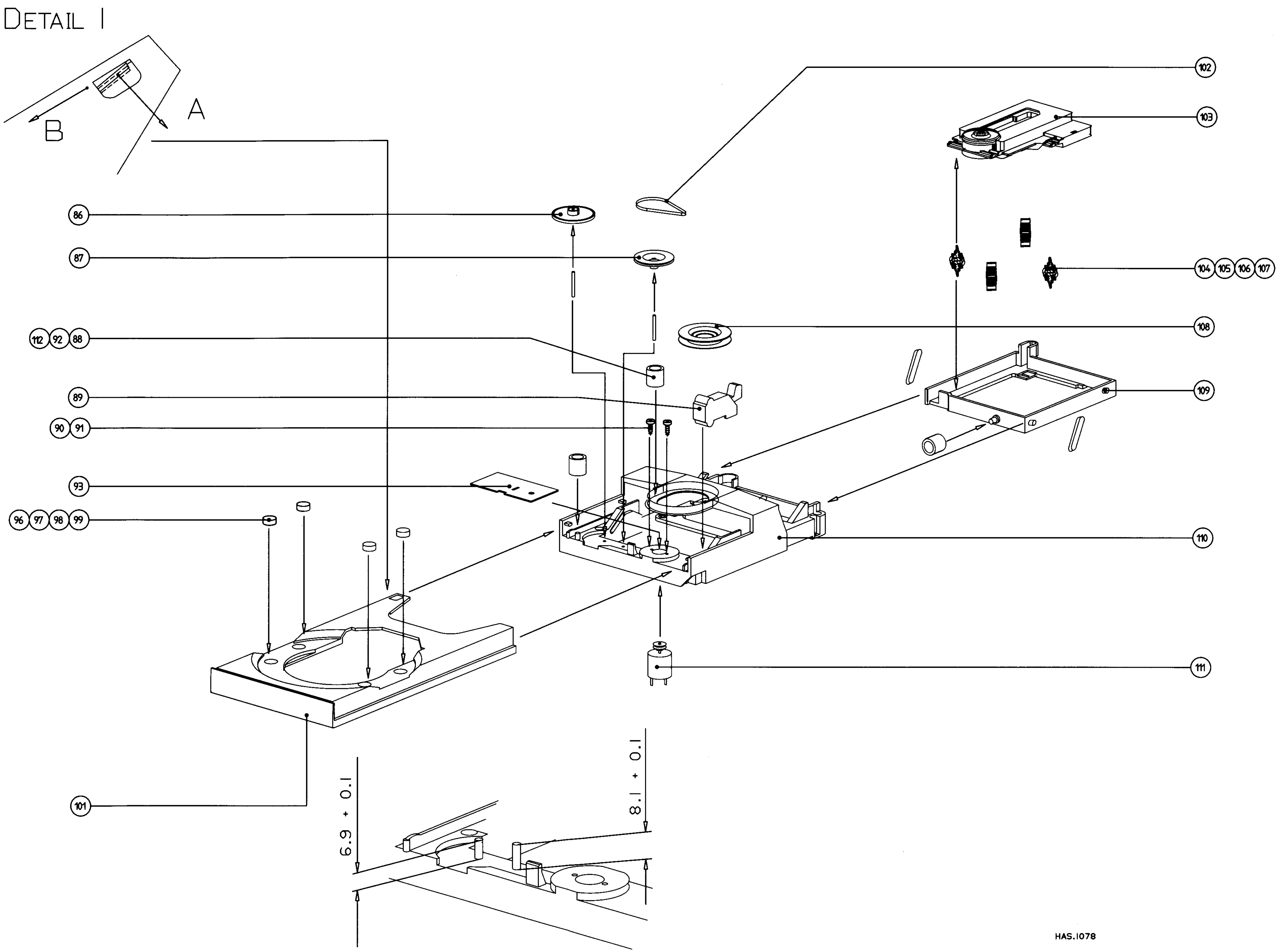

-10
1070 - 2
7370
NJM4556 (B)
2370
22n
+10
1070 - 1
HPL
1070 - 5
3373
15k
3375
120R
5371
4uH7
L
1371
3370
10k
3371
10k
2371
1n
GND
1070 - 4
GNDA
2372
1n
R
3372
10k
3374
15k
3376
120R
5370
4uH7
HPR
1070 - 3
1061 - 1
1061 - 2
GNDA
7370
NJM4556 (A)
2373
1n
CONN 1070 FROM CONN 1301 ON DAC CIRCUIT
3072_0276_H

1061	C 5
1061	D 5
1070	B 1
1070	A 1
1070	C 1
1070	C 1
1070	B 1
1371	B 5
2370	A 4
2371	B 4
2372	C 4
2373	D 5
3370	C 1
3370	B 1
3371	B 2
3372	C 2
3373	B 3
3374	C 3
3375	B 3
3376	C 3
5370	C 4
5371	B 4
7370	D 3
7370	A 2

HEADPHONE PANEL


1061
2373
3371
3373
9502
1070
2370
3375
5371
9500
7370
2371
3370
3376
3374
3372
5370
1371
9501
2372

LOADER

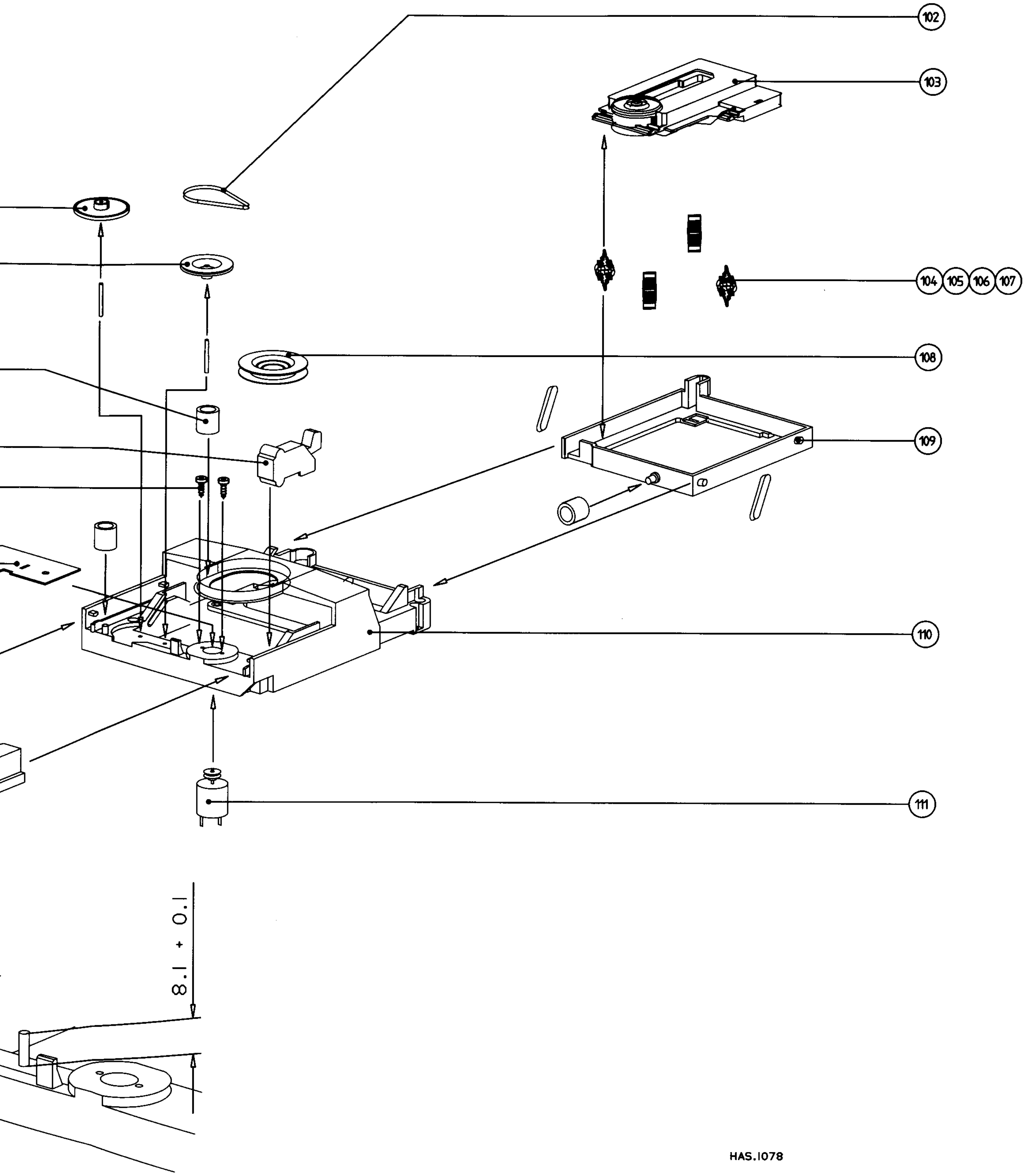

DETAIL I
B
A
102
103
86
87
104 105 106 107
112 92 88
108
89
90 91
109
93
96 97 98 99
110
111
101
6.9 + 0.1
8.1 + 0.1
HAS.1078

PART

86
87
88,92
89
93
96,97
101
102
103
104,10
108
109
110
110
111

Screw

90,91



PARTS LIST LOADER

86	4822 528 81464	DRIVE PINION
87	4822 528 81465	PULLEY
88,92,112	4822 325 60379	DAMPING GROMMET
89	4822 276 13222	SWITCH
93	4822 444 60816	COVER PLATE
96,97,98,99	4822 325 80511	ORNAMENTAL TULE
101	4822 444 50679	SLIDE
102	4822 358 31168	BELT
103	4822 691 30278	CDM12 MECHANISM
104,105,106,107	4822 325 50215	SUSPENSION
108	4822 402 61412	CLAMPER ASSY
109	4822 464 50895	SUBCHASSIS
110	4822 464 50678	CHASSIS (CD710/CD720)
110	4822 464 50896	CHASSIS (CD740/CD750/CD911/CD921)
111	4822 361 21492	MOTOR

Screws

90,91	M 2.2 x 4

MECHANICAL PARTS LIST

1		4822 444 40722	FRONT CD921
1		4822 444 40725	FRONT CD911
15		4822 410 63097	BUTTON UNIT(NOSE)
16		4822 410 63098	BUTTON UNIT(10-KEY)
22		4822 450 61843	WINDOW
23		4822 450 61831	IR WINDOW(ONLY CD921)
52		4822 535 93462	POWER ROD
53		4822 410 61705	VOLUME KNOB
71		4822 444 40531	TRAY FRONT
151		4822 444 60975	COVER
251		4822 462 41888	FOOT
252		4822 462 41888	FOOT
253		4822 462 41888	FOOT
254		4822 462 41888	FOOT
255		4822 462 41887	FELT
256		4822 462 41887	FELT
257		4822 462 41887	FELT
258		4822 462 41887	FELT
283	⚠	4822 532 60948	BUSHING
308		4822 321 22832	CINCH CABLE SBC1072
340		4822 736 21987	INSTRUCTIONS FOR USE CD921
340		4822 736 21999	INSTRUCTIONS FOR USE CD911
365		4822 218 10538	REMOTE CONTROL RD6843(ONLY CD921)

Not mentioned parts are only available during production period on special request.

Screws

Taptite M3x6: 6,7,8
83,84,85
171,172,173,174
175,176,
200,201
211,212
269,270,271,272

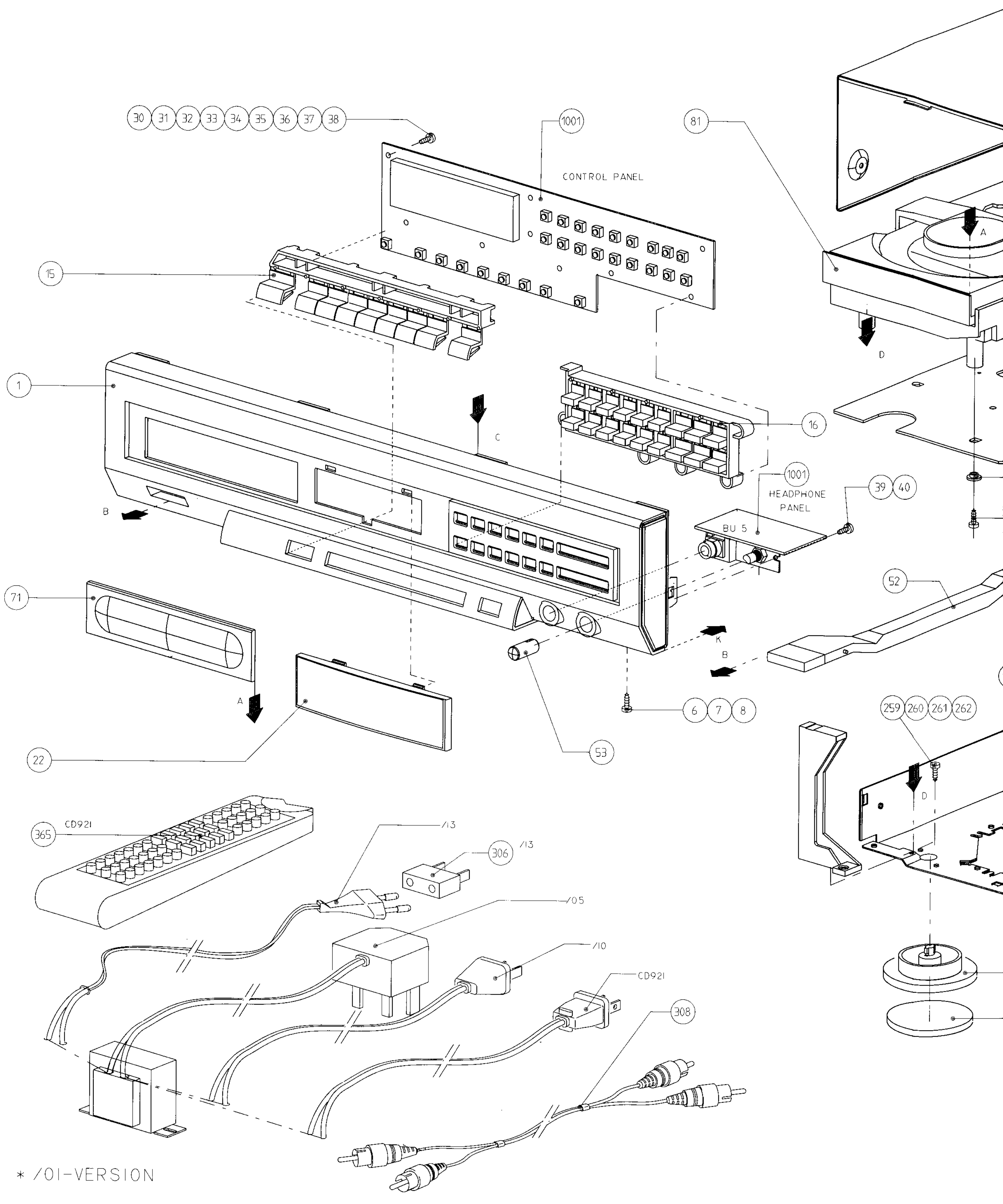
Taptite M3x16: 202

Taptite M3x28: 204,205

Plastite M3x10: 208,209,210
268,274,275
259,260,261,262

Plastite M3x12: 30,31,32,33,34,35,36,37,38
39,40

EXPLODED VIEW


30
31
32
33
34
35
36
37
38
1001
CONTROL PANEL
81
A
15
D
1
C
16
1001
HEADPHONE PANEL
BU 5
39
40
B
71
52
K
B
6
7
8
259
260
261
262
A
22
53
D
365
CD921
/13
306
/13
/05
/10
CD921
308
* /01-VERSION

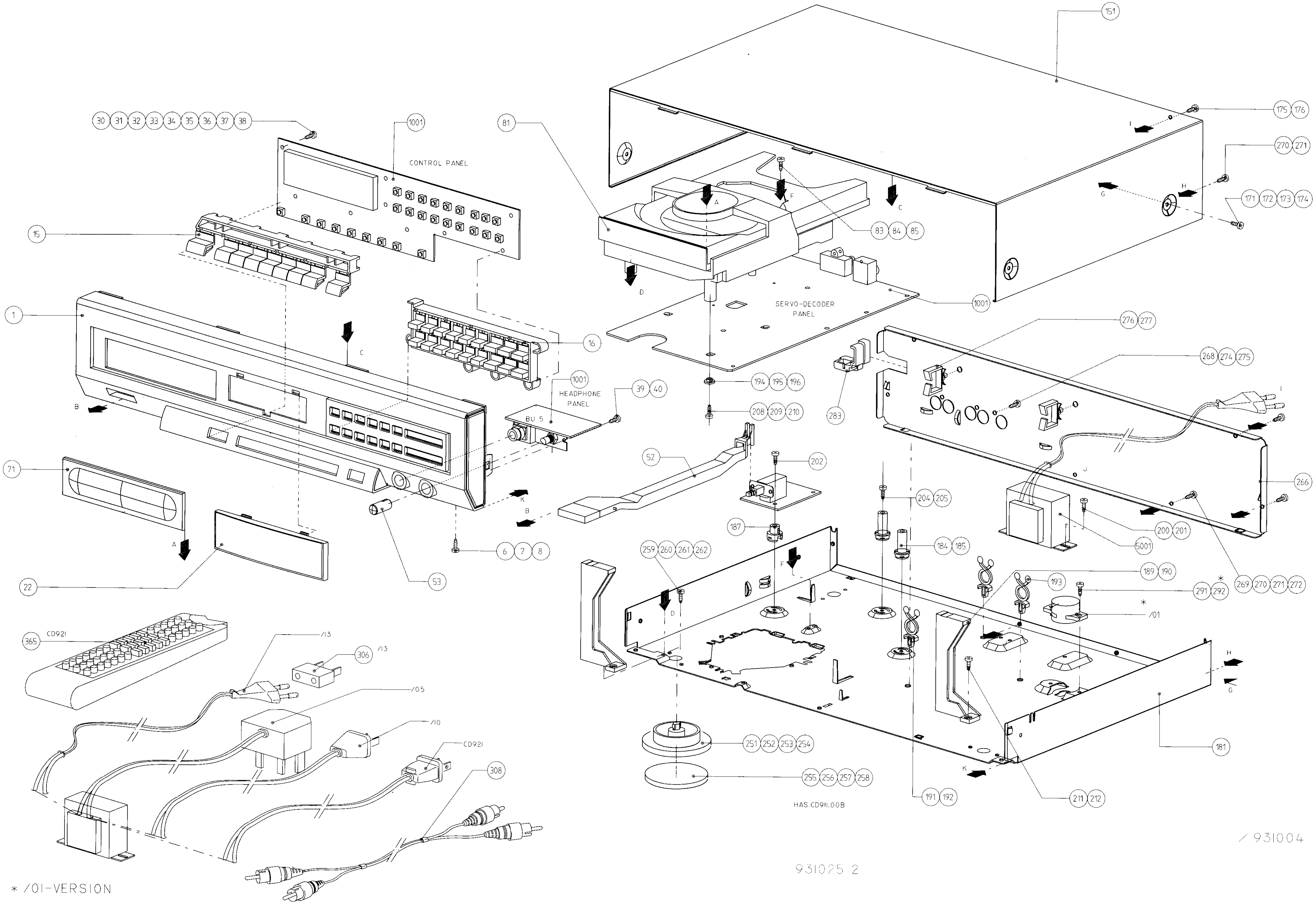
EXPLODED VIEW

Y CD921)

ecial request.

,262

34,35,36,37,38


30
31
32
33
34
35
36
37
38
1001
CONTROL PANEL
15
1
16
1001
HEADPHONE PANEL
BU 5
39
40
71
22
53
6
7
8
A
B
C
K
365
CD921
/13
306
/13
/05
/10
CD921
308
151
175
176
270
271
171
172
173
174
81
83
84
85
1001
SERVO-DECODER PANEL
276
277
268
274
275
194
195
196
208
209
210
283
52
202
266
204
205
187
184
185
200
201
5001
259
260
261
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HAS.CD911.00B

∗ /01-VERSION

931025 2

⁄ 931004

ELECTRICAL PARTS LIST

MAIN PANEL

MISCELLANEOUS

1000	4822 242 73557	RESONATOR 8.46MHz
1050	5322 242 73686	RESONATOR 12MHz
1101	4822 242 81705	RESONATOR 33.8MHz
1250	4822 267 31729	DIGITAL OUT SOCKET
1300	4822 267 31731	ANALOG OUT SOCKET
1510 ▲	4822 071 51002	FUSE RAD T 1A
1511 ▲	4822 071 51002	FUSE RAD T 1A
1530 ▲	4822 276 13489	MAINS SWITCH
1750	4822 267 31759	ESI BUS SOCKET

CAPACITORS

2000	4822 122 10466	220pF 10% 50V
2001	4822 122 10466	220pF 10% 50V
2002	4822 122 10466	220pF 10% 50V
2003	4822 122 10466	220pF 10% 50V
2004	4822 122 10466	220pF 10% 50V
2005	4822 122 10466	220pF 10% 50V
2006	4822 126 12878	1,5nF 10% 16V
2007	4822 122 10459	560pF 10% 50V
2008	5322 124 21643	22μF 20% 40V
2009	4822 126 11585	22nF +80-20% 25V
2010	4822 126 11585	22nF +80-20% 25V
2011	5322 124 21643	22μF 20% 40V
2012	4822 126 11585	22nF +80-20% 25V
2013	5322 124 21643	22μF 20% 40V
2014	4822 126 12785	47nF TUB 50V
2025	5322 124 21643	22μF 20% 40V
2040	4822 126 10053	180pF 10%Y5P
2041	4822 126 10053	180pF 10%Y5P
2042	4822 126 12787	330pF 10% 50V
2043	4822 122 33848	47pF 5%SL 50V
2044	4822 122 33848	47pF 5%SL 50V
2045	4822 122 33195	100pF 10% 50V
2046	4822 126 12573	18pF 5% 50V
2047	5322 124 21643	22μF 20% 40V
2048	4822 126 12787	330pF 10% 50V
2049	4822 126 10053	180pF 10%Y5P
2050	4822 122 10466	220pF 10% 50V
2051	4822 126 11585	22nF +80-20% 25V
2052	5322 124 21643	22μF 20% 40V
2060	4822 126 12882	100nF +80-20% 50V
2062	4822 126 12882	100nF +80-20% 50V
2063	5322 121 42489	33nF 5% 250V
2064	4822 126 12882	100nF +80-20% 50V
2066	4822 126 12339	2,2nF 10% Y5Ω
2067	4822 126 12882	100nF +80-20% 50V
2068	4822 126 12148	2,7nF 10%
2069	4822 126 10053	180pF 10%Y5P
2071	4822 126 12882	100nF +80-20% 50V
2072	4822 126 12882	100nF +80-20% 50V
2074	4822 126 12882	100nF +80-20% 50V
2075	4822 126 13151	3,9nF 10%Y5Ω16V
2076	4822 126 10053	180pF 10%Y5P
2100	4822 126 12339	2,2nF 10% Y5Ω
2101	4822 122 33848	47pF 5%SL 50V
2102	4822 126 11585	22nF +80-20% 25V
2103	5322 121 42386	100nF 5% 63V
2105	4822 122 33195	100pF 10% 50V
2109	4822 122 33191	22pF 5% 50V
2110	5322 124 21643	22μF 20% 40V
2111	4822 126 12882	100nF +80-20% 50V
2112	4822 122 33848	47pF 5%SL 50V
2113	4822 122 33848	47pF 5%SL 50V
2114	4822 122 33197	1nF 10% 50V
2115	4822 126 11585	22nF +80-20% 25V
2117	4822 126 11585	22nF +80-20% 25V
2116	5322 124 21643	22μF 20% 40V
2118	4822 122 33848	47pF 5%SL 50V
2140	4822 126 12785	47nF TUB 50V
2141	4822 126 12882	100nF +80-20% 50V
2142	4822 122 33848	47pF 5%SL 50V
2251	4822 124 40248	10μF 20% 63V
2253	4822 126 12882	100nF +80-20% 50V
2300	4822 122 33519	470pF 10% 50V
2301	4822 122 33519	470pF 10% 50V
2302	4822 124 40433	47μF 20% 25V
2303	4822 124 40433	47μF 20% 25V
2304	4822 122 10573	56pF 5% 50V
2305	4822 122 10573	56pF 5% 50V
2306	4822 124 80408	4,7μF 20% 50V
2307	4822 124 80408	4,7μF 20% 50V
2308	4822 122 10466	220pF 10% 50V
2309	4822 122 10466	220pF 10% 50V
2310	4822 124 40433	47μF 20% 25V
2330	4822 126 12882	100nF +80-20% 50V
2331	4822 124 40433	47μF 20% 25V
2332	4822 126 12882	100nF +80-20% 50V
2333	4822 124 40433	47μF 20% 25V
2334	4822 126 12882	100nF +80-20% 50V
2335	4822 124 40433	47μF 20% 25V
2336	4822 126 12882	100nF +80-20% 50V
2337	4822 124 40433	47μF 20% 25V
2339	4822 124 40433	47μF 20% 25V
2531	4822 126 11585	22nF +80-20% 25V
2532	4822 126 11585	22nF +80-20% 25V
2533	4822 126 11585	22nF +80-20% 25V
2534	4822 126 11585	22nF +80-20% 25V
2535	4822 126 12882	100nF +80-20% 50V
2536	4822 124 41458	4700μF 20% 16V
2538	4822 124 80294	3300μF 20% 16V

2540	5322 124 22094	220μF 20% 50V
2541	4822 126 12882	100nF +80-20% 50V
2542	4822 124 40184	1000μF 20% 10V
2560	4822 124 40849	330μF 20% 16V
2600	4822 126 12882	100nF +80-20% 50V
2601	4822 126 11585	22nF +80-20% 25V
2602	4822 126 11585	22nF +80-20% 25V
2701	4822 126 11585	22nF +80-20% 25V
2703	4822 126 11585	22nF +80-20% 25V
2740	4822 124 40433	47μF 20% 25V
2741	4822 126 11585	22nF +80-20% 25V

RESISTORS

3000	4822 116 52233	10k 5% 0,5W
3001	4822 116 52233	10k 5% 0,5W
3002	4822 116 52233	10k 5% 0,5W
3003	4822 116 52233	10k 5% 0,5W
3004	4822 116 52233	10k 5% 0,5W
3005	4822 116 52233	10k 5% 0,5W
3006	4822 050 11002	1k 1% 0,4W
3007	4822 050 11002	1k 1% 0,4W
3010	4822 116 52235	1M 5% 0,5W
3011	4822 116 52233	10k 5% 0,5W
3012	4822 116 52219	330Ω 5% 0,5W
3013	4822 050 11002	1k 1% 0,4W
3014	4822 116 52233	10k 5% 0,5W
3015	4822 116 52219	330Ω 5% 0,5W
3020	4822 050 11002	1k 1% 0,4W
3021	4822 116 52233	10k 5% 0,5W
3022 ▲	4822 052 10478	4Ω7 5% 0,33W
3040	4822 116 52239	120k 5% 0,5W
3041	4822 116 52239	120k 5% 0,5W
3042	4822 116 52291	56k 5% 0,5W
3043	4822 050 11002	1k 1% 0,4W
3044	4822 116 52222	390Ω 5% 0,5W
3045	4822 116 52175	100Ω 5% 0,5W
3046	4822 116 52249	1k8 5% 0,5W
3047	4822 116 52276	3k9 5% 0,5W
3048	4822 116 52175	100Ω 5% 0,5W
3049	4822 116 52249	1k8 5% 0,5W
3050	4822 116 52223	430Ω 5% 0,5W
3051	4822 116 52223	430Ω 5% 0,5W
3052	4822 050 11002	1k 1% 0,4W
3053	4822 116 52267	30k 5% 0,5W
3054	4822 116 52272	330k 5% 0,5W
3055	4822 116 52175	100Ω 5% 0,5W
3056	4822 050 11002	1k 1% 0,4W
3057	4822 116 52277	39k 5% 0,5W
3058	4822 116 52175	100Ω 5% 0,5W
3059	4822 116 52284	47k 5% 0,5W
3060	4822 116 52233	10k 5% 0,5W
3062 ▲	4822 052 10229	22Ω 5% 0,33W
3064	4822 116 52296	6k8 5% 0,5W
3065	4822 050 27502	7k5 1% 0,6W
3066	4822 050 21503	15k 1% 0,6W
3067	4822 116 52244	15k 5% 0,5W
3068 ▲	4822 052 10229	22Ω 5% 0,33W
3069	4822 116 52233	10k 5% 0,5W
3070	4822 116 52244	15k 5% 0,5W
3071	4822 116 52296	6k8 5% 0,5W
3072	4822 116 52233	10k 5% 0,5W
3073	4822 116 52244	15k 5% 0,5W
3074 ▲	4822 052 10229	22Ω 5% 0,33W
3075	4822 116 52233	10k 5% 0,5W
3076	4822 116 52283	4k7 5% 0,5W
3077	4822 116 52296	6k8 5% 0,5W
3078	4822 116 52244	15k 5% 0,5W
3079	4822 116 52244	15k 5% 0,5W
3100	4822 116 52256	2k2 5% 0,5W
3101	4822 116 52257	22k 5% 0,5W
3107	4822 116 52219	330Ω 5% 0,5W
3108	4822 116 52215	220Ω 5% 0,5W
3109	4822 116 52215	220Ω 5% 0,5W
3110	4822 116 52215	220Ω 5% 0,5W
3111	4822 116 52215	220Ω 5% 0,5W
3112	4822 116 52175	100Ω 5% 0,5W
3113 ▲	4822 052 10338	3Ω3 5% 0,33W
3114	4822 116 52235	1M 5% 0,5W
3115 ▲	4822 052 10338	3Ω3 5% 0,33W
3116	4822 116 52175	100Ω 5% 0,5W
3117	4822 116 52219	330Ω 5% 0,5W
3140	4822 116 52271	33k 5% 0,5W
3141	4822 116 52271	33k 5% 0,5W
3142	4822 116 52271	33k 5% 0,5W
3143	4822 116 52234	100k 5% 0,5W
3144	4822 116 52234	100k 5% 0,5W
3145 ▲	4822 052 10229	22Ω 5% 0,33W
3146	4822 116 52175	100Ω 5% 0,5W
3147	4822 116 52283	4k7 5% 0,5W
3252	4822 116 52199	68Ω 5% 0,5W
3302	4822 116 52233	10k 5% 0,5W
3303	4822 116 52233	10k 5% 0,5W
3304	4822 116 52244	15k 5% 0,5W
3305	4822 116 52244	15k 5% 0,5W
3306	4822 116 52257	22k 5% 0,5W
3307	4822 116 52257	22k 5% 0,5W
3308	4822 050 11002	1k 1% 0,4W
3309	4822 050 11002	1k 1% 0,4W
3330 ▲	4822 052 10338	3Ω3 5% 0,33W
3331 ▲	4822 052 10338	3Ω3 5% 0,33W
3332 ▲	4822 052 10338	3Ω3 5% 0,33W
3333 ▲	4822 052 10478	4Ω7 5% 0,33W
3334 ▲	4822 052 10478	4Ω7 5% 0,33W
3360	4822 116 52284	47k 5% 0,5W
3361	4822 116 52284	47k 5% 0,5W
3362	4822 116	
3363	4822 116	
3364	4822 116	
3365	4822 116	
3366	4822 116	
3367	4822 116	
3368	4822 116	
3369	4822 116	
3376	4822 050	
3377	4822 050	
3500	4822 116	
3501	4822 050	
3502	4822 116	
3503	4822 116	
3540	4822 116	
3541	4822 116	
3542	4822 116	
3543	4822 116	
3544	4822 116	
3545 ▲	4822 052	
3560	4822 050	
3562	4822 116	
3563	4822 116	
3601	4822 116	
3602	4822 116	
3603 ▲	4822 052	
3604	4822 116	
3606	4822 116	
3607	4822 116	
3700	4822 116	
3701	4822 116	
3703	4822 116	
3706	4822 116	
3707	4822 116	
3708	4822 116	
3709	4822 116	
3710	4822 116	
3711	4822 116	
3714	4822 116	
3715	4822 116	
3716	4822 050	
3717	4822 050	
3718	4822 050	
3719	4822 050	
3720	4822 050	
3723	4822 116	
3743 ▲	4822 052	
3744	4822 116	
3745	4822 116	
3746	4822 116	
3747	4822 116	
3748	4822 116	
3749	4822 116	
3750	4822 116	

2540	5322 124 22094	220µF 20% 50V
2541	4822 126 12882	100nF +80-20% 50V
2542	4822 124 40184	1000µF 20% 10V
2560	4822 124 40849	330µF 20% 16V
2600	4822 126 12882	100nF +80-20% 50V
2601	4822 126 11585	22nF +80-20% 25V
2602	4822 126 11585	22nF +80-20% 25V
2701	4822 126 11585	22nF +80-20% 25V
2703	4822 126 11585	22nF +80-20% 25V
2740	4822 124 40433	47µF 20% 25V
2741	4822 126 11585	22nF +80-20% 25V

RESISTORS

3000	4822 116 52233	10k 5% 0,5W
3001	4822 116 52233	10k 5% 0,5W
3002	4822 116 52233	10k 5% 0,5W
3003	4822 116 52233	10k 5% 0,5W
3004	4822 116 52233	10k 5% 0,5W
3005	4822 116 52233	10k 5% 0,5W
3006	4822 050 11002	1k 1% 0,4W
3007	4822 050 11002	1k 1% 0,4W
3010	4822 116 52235	1M 5% 0,5W
3011	4822 116 52233	10k 5% 0,5W
3012	4822 116 52219	330Ω 5% 0,5W
3013	4822 050 11002	1k 1% 0,4W
3014	4822 116 52233	10k 5% 0,5W
3015	4822 116 52219	330Ω 5% 0,5W
3020	4822 050 11002	1k 1% 0,4W
3021	4822 116 52233	10k 5% 0,5W
3022 ▲	4822 052 10478	4Ω7 5% 0,33W
3040	4822 116 52239	120k 5% 0,5W
3041	4822 116 52239	120k 5% 0,5W
3042	4822 116 52291	56k 5% 0,5W
3043	4822 050 11002	1k 1% 0,4W
3044	4822 116 52222	390Ω 5% 0,5W
3045	4822 116 52175	100Ω 5% 0,5W
3046	4822 116 52249	1k8 5% 0,5W
3047	4822 116 52276	3k9 5% 0,5W
3048	4822 116 52175	100Ω 5% 0,5W
3049	4822 116 52249	1k8 5% 0,5W
3050	4822 116 52223	430Ω 5% 0,5W
3051	4822 116 52223	430Ω 5% 0,5W
3052	4822 050 11002	1k 1% 0,4W
3053	4822 116 52267	30k 5% 0,5W
3054	4822 116 52272	330k 5% 0,5W
3055	4822 116 52175	100Ω 5% 0,5W
3056	4822 050 11002	1k 1% 0,4W
3057	4822 116 52277	39k 5% 0,5W
3058	4822 116 52175	100Ω 5% 0,5W
3059	4822 116 52284	47k 5% 0,5W
3060	4822 116 52233	10k 5% 0,5W
3062 ▲	4822 052 10229	22Ω 5% 0,33W
3064	4822 116 52296	6k8 5% 0,5W
3065	4822 050 27502	7k5 1% 0,6W
3066	4822 050 21503	15k 1% 0,6W
3067	4822 116 52244	15k 5% 0,5W
3068 ▲	4822 052 10229	22Ω 5% 0,33W
3069	4822 116 52233	10k 5% 0,5W
3070	4822 116 52244	15k 5% 0,5W
3071	4822 116 52296	6k8 5% 0,5W
3072	4822 116 52233	10k 5% 0,5W
3073	4822 116 52244	15k 5% 0,5W
3074 ▲	4822 052 10229	22Ω 5% 0,33W
3075	4822 116 52233	10k 5% 0,5W
3076	4822 116 52283	4k7 5% 0,5W
3077	4822 116 52296	6k8 5% 0,5W
3078	4822 116 52244	15k 5% 0,5W
3079	4822 116 52244	15k 5% 0,5W
3100	4822 116 52256	2k2 5% 0,5W
3101	4822 116 52257	22k 5% 0,5W
3107	4822 116 52219	330Ω 5% 0,5W
3108	4822 116 52215	220Ω 5% 0,5W
3109	4822 116 52215	220Ω 5% 0,5W
3110	4822 116 52215	220Ω 5% 0,5W
3111	4822 116 52215	220Ω 5% 0,5W
3112	4822 116 52175	100Ω 5% 0,5W
3113 ▲	4822 052 10338	3Ω3 5% 0,33W
3114	4822 116 52235	1M 5% 0,5W
3115 ▲	4822 052 10338	3Ω3 5% 0,33W
3116	4822 116 52175	100Ω 5% 0,5W
3117	4822 116 52219	330Ω 5% 0,5W
3140	4822 116 52271	33k 5% 0,5W
3141	4822 116 52271	33k 5% 0,5W
3142	4822 116 52271	33k 5% 0,5W
3143	4822 116 52234	100k 5% 0,5W
3144	4822 116 52234	100k 5% 0,5W
3145 ▲	4822 052 10229	22Ω 5% 0,33W
3146	4822 116 52175	100Ω 5% 0,5W
3147	4822 116 52283	4k7 5% 0,5W
3252	4822 116 52199	68Ω 5% 0,5W
3302	4822 116 52233	10k 5% 0,5W
3303	4822 116 52233	10k 5% 0,5W
3304	4822 116 52244	15k 5% 0,5W
3305	4822 116 52244	15k 5% 0,5W
3306	4822 116 52257	22k 5% 0,5W
3307	4822 116 52257	22k 5% 0,5W
3308	4822 050 11002	1k 1% 0,4W
3309	4822 050 11002	1k 1% 0,4W
3330 ▲	4822 052 10338	3Ω3 5% 0,33W
3331 ▲	4822 052 10338	3Ω3 5% 0,33W
3332 ▲	4822 052 10338	3Ω3 5% 0,33W
3333 ▲	4822 052 10478	4Ω7 5% 0,33W
3334 ▲	4822 052 10478	4Ω7 5% 0,33W
3360	4822 116 52284	47k 5% 0,5W
3361	4822 116 52284	47k 5% 0,5W

3362	4822 116 52258	220k 5% 0,5W
3363	4822 116 52258	220k 5% 0,5W
3364	4822 116 52256	2k2 5% 0,5W
3365	4822 116 52256	2k2 5% 0,5W
3366	4822 116 52256	2k2 5% 0,5W
3367	4822 116 52256	2k2 5% 0,5W
3368	4822 116 52233	10k 5% 0,5W
3369	4822 116 52233	10k 5% 0,5W
3376	4822 050 11002	1k 1% 0,4W
3377	4822 050 11002	1k 1% 0,4W
3500	4822 116 52226	560Ω 5% 0,5W
3501	4822 050 11002	1k 1% 0,4W
3502	4822 116 52257	22k 5% 0,5W
3503	4822 116 52257	22k 5% 0,5W
3540	4822 116 52284	47k 5% 0,5W
3541	4822 116 52243	1k5 5% 0,5W
3542	4822 116 52283	4k7 5% 0,5W
3543	4822 116 52283	4k7 5% 0,5W
3544	4822 116 52257	22k 5% 0,5W
3545 ▲	4822 052 10478	4Ω7 5% 0,33W
3560	4822 050 11002	1k 1% 0,4W
3562	4822 116 52283	4k7 5% 0,5W
3563	4822 116 52283	4k7 5% 0,5W
3601	4822 116 52238	12k 5% 0,5W
3602	4822 116 52238	12k 5% 0,5W
3603 ▲	4822 052 10229	22Ω 5% 0,33W
3604	4822 116 52303	8k2 5% 0,5W
3606	4822 116 52238	12k 5% 0,5W
3607	4822 116 52238	12k 5% 0,5W
3700	4822 116 52258	220k 5% 0,5W
3701	4822 116 52257	22k 5% 0,5W
3703	4822 116 52257	22k 5% 0,5W
3706	4822 116 52257	22k 5% 0,5W
3707	4822 116 52257	22k 5% 0,5W
3708	4822 116 52257	22k 5% 0,5W
3709	4822 116 52257	22k 5% 0,5W
3710	4822 116 52257	22k 5% 0,5W
3711	4822 116 52257	22k 5% 0,5W
3714	4822 116 52257	22k 5% 0,5W
3715	4822 116 52233	10k 5% 0,5W
3716	4822 050 11002	1k 1% 0,4W
3717	4822 050 11002	1k 1% 0,4W
3718	4822 050 11002	1k 1% 0,4W
3719	4822 050 11002	1k 1% 0,4W
3720	4822 050 11002	1k 1% 0,4W
3723	4822 116 52257	22k 5% 0,5W
3743 ▲	4822 052 10109	10Ω 5% 0,33W
3744	4822 116 52175	100Ω 5% 0,5W
3745	4822 116 52284	47k 5% 0,5W
3746	4822 116 52251	18k 5% 0,5W
3747	4822 116 52284	47k 5% 0,5W
3748	4822 116 52284	47k 5% 0,5W
3749	4822 116 52284	47k 5% 0,5W
3750	4822 116 52284	47k 5% 0,5W

COILS

5010	4822 157 62552	2,2µH
5100	4822 157 62552	2,2µH
5250	4822 157 70601	DIG. OUT TRANSFO

DIODES

6360	4822 130 30621	1N4148
6361	4822 130 30621	1N4148
6500	4822 130 31981	BZX79-C3V9
6535	5322 130 30684	1N4002GP
6536	5322 130 30684	1N4002GP
6537	5322 130 30684	1N4002GP
6538	5322 130 30684	1N4002GP
6540	4822 130 83362	1N4004GP
6541	4822 130 34278	BZX79-C6V8
6542	4822 130 30621	1N4148
6543	5322 130 30684	1N4002GP
6544	4822 130 30621	1N4148
6560	5322 130 30684	1N4002GP
6561	5322 130 30684	1N4002GP
6562	4822 130 31981	BZX79-C3V9
6740	4822 130 31983	BAT85

TRANSISTORS & IC'S

7000	4822 209 31064	TDA1301T/N1
7040	4822 130 40902	BF240
7041	4822 130 40937	BC548B
7042	4822 130 44197	BC558B
7043	4822 130 40937	BC548B
7044	4822 130 40937	BC548B
7060	4822 209 72587	TCA0372
7061	4822 209 72587	TCA0372
7100	4822 209 33166	SAA7345GP/M2A
7300	4822 209 33252	TDA1549T/N1
7301	4822 209 83274	NJM4560D
7360	4822 130 44197	BC558B
7361	4822 130 44197	BC558B
7362	4822 130 41344	BC337-40
7363	4822 130 41344	BC337-40
7364	4822 130 41344	BC337-40
7365	4822 130 41344	BC337-40
7500	4822 130 44197	BC558B
7535	4822 209 80891	MC7805CT
7540	5322 209 62115	MC79L15AC
7541	4822 130 40937	BC548B
7542	4822 130 41344	BC337-40
7543	4822 130 44197	BC558B
7560	4822 130 44197	BC558B

7600	4822 209 72587	TCA0372
7700	4822 209 33406	MC68HC11ER24/P160-07
7740	4822 130 44197	BC558B
7741	4822 130 40937	BC548B
7742	4822 130 40937	BC548B

DISPLAY & HEADPHONE PANEL

MISCELLANEOUS

	4822 256 91876	DISPLAY HOLDER
1040	4822 214 52009	IR RECEIVER GP1U58XP
1371	4822 267 31453	HEADPHONE SOCKET
1402	4822 242 72527	RESONATOR 4MHz
1420	4822 276 13114	TACT SWITCH
1421	4822 276 13114	TACT SWITCH
1422	4822 276 13114	TACT SWITCH
1423	4822 276 13114	TACT SWITCH
1425	4822 276 13114	TACT SWITCH
1426	4822 276 13114	TACT SWITCH
1427	4822 276 13114	TACT SWITCH
1428	4822 276 13114	TACT SWITCH
1429	4822 276 13114	TACT SWITCH
1430	4822 276 13114	TACT SWITCH
1431	4822 276 13114	TACT SWITCH
1432	4822 276 13114	TACT SWITCH
1433	4822 276 13114	TACT SWITCH
1434	4822 276 13114	TACT SWITCH
1435	4822 276 13114	TACT SWITCH
1436	4822 276 13114	TACT SWITCH
1437	4822 276 13114	TACT SWITCH
1438	4822 276 13114	TACT SWITCH
1439	4822 276 13114	TACT SWITCH
1440	4822 276 13114	TACT SWITCH
1441	4822 276 13114	TACT SWITCH
1442	4822 276 13114	TACT SWITCH
1443	4822 276 13114	TACT SWITCH
1444	4822 276 13114	TACT SWITCH
1445	4822 276 13114	TACT SWITCH
1446	4822 276 13114	TACT SWITCH
1450	4822 130 91331	DISPLAY 8-BT-156GK

CAPACITORS

2370	4822 126 11585	22nF +80-20% 25V
2371	4822 122 33197	1nF 10% 50V
2372	4822 122 33197	1nF 10% 50V
2373	4822 122 33197	1nF 10% 50V
2404	5322 124 21643	22µF 20% 40V

RESISTORS

3370	4822 101 21199	10kX2 20% 0,025W
3371	4822 116 52233	10k 5% 0,5W
3372	4822 116 52233	10k 5% 0,5W
3373	4822 116 52244	15k 5% 0,5W
3374	4822 116 52244	15k 5% 0,5W
3375	4822 116 52206	120Ω 5% 0,5W
3376	4822 116 52206	120Ω 5% 0,5W
3400	4822 116 52258	220k 5% 0,5W
3401	4822 116 52257	22k 5% 0,5W
3402	4822 116 52257	22k 5% 0,5W
3403	4822 116 52257	22k 5% 0,5W
3404	4822 116 52257	22k 5% 0,5W
3406	4822 116 52257	22k 5% 0,5W
3407	4822 116 52284	47k 5% 0,5W
3409	4822 116 52257	22k 5% 0,5W

COILS

5370	4822 157 60122	COIL 4.7µH
5371	4822 157 60122	COIL 4.7µH

DIODES, TRANSISTORS & I.C.'s

6400	4822 130 30621	1N4148
6401	4822 130 30621	1N4148
6402	4822 130 30621	1N4148
6403	4822 130 30621	1N4148
6404	4822 130 30621	1N4148
6405	4822 130 30621	1N4148
6406	4822 130 30621	1N4148
7370	4822 209 82362	NJM4556D
7400	4822 209 30249	TMP47C212AN

MAINS VOLTAGE

5001 ▲	4822 146 31337	MAINS TRANSFO /00
5001 ▲	4822 146 31341	MAINS TRANSFO /17